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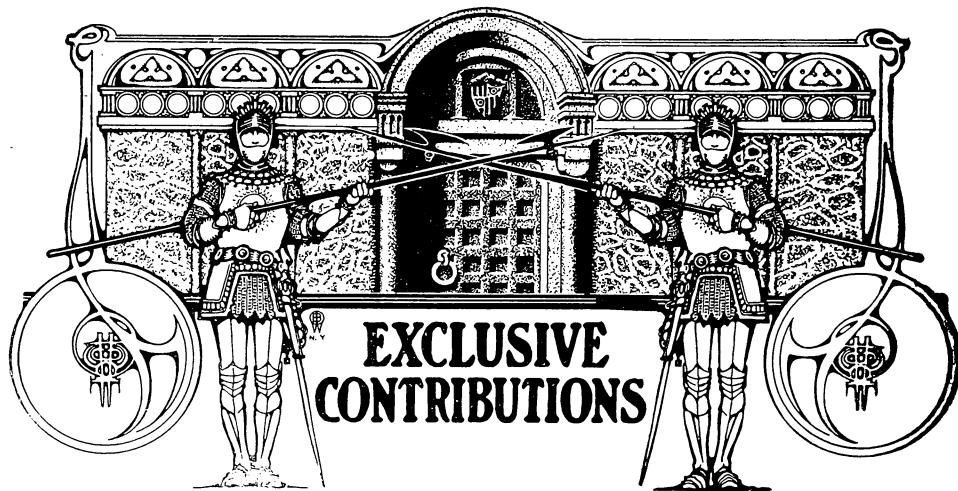
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Methods of Filling Teeth with Gold Inlays.*

By THOS. P. HINMAN, D.D.S., Atlanta, Ga.

My purpose is to describe methods of filling teeth by a process of inlaying with gold, in place of the more tedious and painful mode of hammering the various gold preparations into previously prepared cavities. It is hoped that by simplifying and perfecting this process, it will gain the popularity with the profession that it so richly deserves.

No method of filling teeth with gold should have any claim on the attention of the operator, unless it has decided advantages over the processes now in vogue. The filling of teeth with gold, by inlaying, has so many claims for attention over the older practices that I deem it proper at the outset to set forth these advantages in as clear and concise a manner as possible.

Advantages of Inlays. Filling with inlays does away with the long and tedious sittings, which are necessary when restoring

large portions of lost tooth structure with cohesive gold, or its combinations. In many instances these long sittings have precluded the use of gold entirely, because of the physical inability of the patient to endure such trying operations; then, too, the fearful strain on the operator has been such in some instances, as to deter him from attempting extensive restorations; and not infre-

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quently, he has been compelled to advise the use of amalgam, or still worse, the adornment of the tooth with a gold crown.

The rubber dam is so obnoxious and unbearable to some patients, that its use is practically precluded. In inlaying teeth with gold, it is seldom necessary to apply the rubber dam. The abandonment of the rubber dam is not advocated, but in most instances inlays can be made and set without its use. The cavity can be kept dry with the napkin (or by other means) sufficiently long to allow the setting of an ordinary gold inlay. This is especially true where hydraulic cement is used.

With the gold inlay, the scaling of the filling, so frequently observed where cohesive gold has been used for large restorations, is entirely avoided, as the gold in the inlay is a solid melted mass.

Contour is restored with greater ease and less separation and if not enough contour is obtained on the first trial, the inlay may be removed and more gold added at the exact spot where it is needed, a misadventure causing much trouble, and a re-application of the rubber dam in operations where cohesive gold is used.

The restoration of the cusps to a correct occlusion is easy with inlays, but of considerable difficulty when attempted with cohesive gold.

It has been noted that caries seldom occurs around porcelain inlays; this same chemical fact has been observed by operators who have used gold inlays. While it is not asserted that caries cannot recur around gold inlays, it is the belief of the author backed by observation and experience, that recurrent decay about the margins of gold inlays is less frequent than with fillings made of cohesive gold, or its combinations. This may to a certain extent be due to the necessary extension of the cavity bucco-lingually. But the fact obtains nevertheless.

In teeth, sensitive to thermal change, filled with cohesive gold, the sensitiveness is greatly increased by the filling, as the act of malleting causes a slight hyperæmia of the pulp; then, too, the gold coming in actual contact with the tubuli of the dentine the thermal shock is greatly increased. This does not hold in the gold inlay, as there is no hyperæmia from malleting; moreover, there is a lining of cement, which is a non-conductor, between the gold and dentine, so that there is little reaction to thermal change in teeth largely filled with gold inlays.

While it is well known that oxyphosphate of zinc is not a perfect non-conductor of heat and cold, still the conductivity of the gold is diffused by striking the cement, the cement acting somewhat like a choke coil in a lightning arrester in checking the force of the thermal change and greatly reducing the shock.



EXCLUSIVE CONTRIBUTIONS

Bicuspids may be restored with an inlay very successfully, where only the buccal walls remain intact, provided these walls are reasonably well supported by dentine. In molars, where the mesial, distal and all of the morsal surfaces are lost, these parts may be restored with no great difficulty.

In advocating the methods that are to follow, there is no idea of presenting an easy and rapid method of filling teeth, but one by which more artistic and permanent results may be obtained by the skilful operator, with less strain on the patient and on himself, for just in proportion as the size of the cavity increases, the gold inlay proves a time saver.

The filling of teeth with inlays removes from the mouth as much as possible the construction of the filling, while obtaining results as perfect and even more permanent than can be secured by the method of filling teeth with gold, using the mallet as a condensing force.

It is not here claimed that all cavities in all teeth should be inlaid, as this work has its limitations; there are many cavities that should preferably be filled with non-cohesive or cohesive gold.

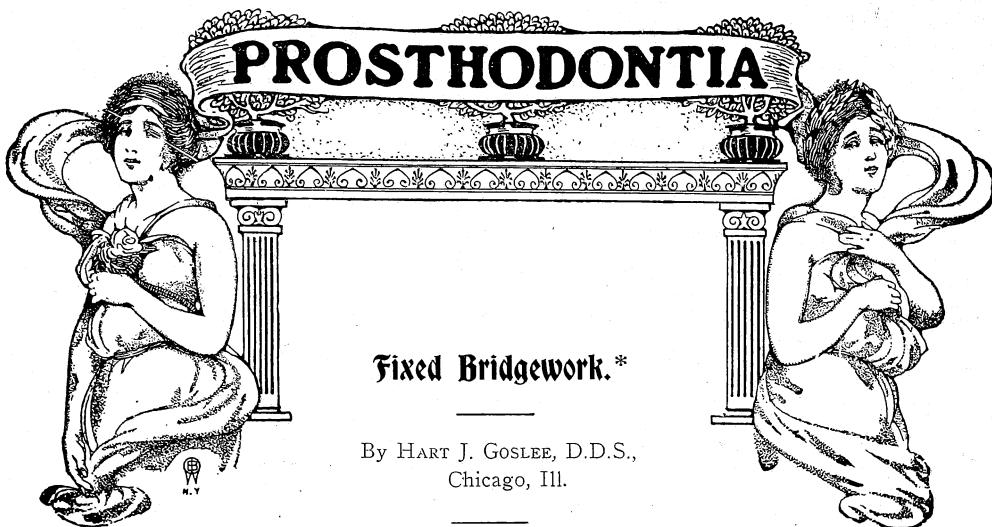
The gold inlay has another decided advantage. If it should become dislodged during mastication on account of imperfect cementation, the same inlay may be properly re-cemented. This is impracticable with a gold filling which is lost by fracture across the anchorage, or recurrent decay.

In the preparation of a cavity for the reception of a gold inlay, the floor of the cavity retains its maximum strength and no grooves are cut into it to obtain anchorage, as anchorage is secured entirely in the morsal surface assisted by the adhesion of the cement, both to the gold and to the cavity walls.

Gold inlays resist wear better, because made of a lower karat than foil or pellets, and for this reason are more strongly indicated on the morsal surfaces of abraded teeth, where they can be more easily and perfectly adapted than cohesive gold or its combinations.

Gold inlays are a most excellent substitute for gold crowns in molars and bicuspids where the teeth are very badly broken down, and it is inevitable that their introduction and use in the hands of conscientious and skilful operators, will prove a boon to mankind and a stimulus to the cosmetic in dentistry.

(To be Continued.)



Fixed Bridgework.*

By HART J. GOSLEE, D.D.S.,
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Diversified Principles.

The preceding methods of construction while designated as the typical and orthodox procedures, do not, however, entirely constitute the sum total of those which occupy a permanent sphere of usefulness in the building of fixed bridgework.

While it would be useless to attempt specifically to describe the myriad of methods which have been devised from time to time, and while many of them—still recommended in text-books—have already proven to be impracticable, and some have even become obsolete, yet others possess such merit as to practically demand the classification and consideration which follows.

Interrupted Bridges.

Among the most prominent types belonging to the classification of "diversified principles" is the one wherein the presence, at some point in the arch, of a natural tooth which is not needed nor used as an abutment, may cause an interruption in the otherwise continuous relation of the individual parts comprising the piece, and the particular type of construction thus resulting is designated an "interrupted" bridge.

Whilst as a general rule it is always better and safer to employ a *maximum* instead of a minimum number of abutments, still there is nevertheless a limited class where the utilization of certain remaining good sound

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teeth is unwise or unnecessary, and therefore contraindicated, because of the opportunity for otherwise obtaining adequate strength in the attachment of the piece. It is true that such cases are the exception rather than the rule, and yet when they do present it would be manifestly unwise to involve a good tooth which is not actually needed in the support of the bridge. Such breaks in the continuity of the structure, however, should rarely if ever exceed the space of a single tooth, and this should be principally in the *upper* denture, and anterior to the first molar.

In the application of such a type of construction

Application. In the application of such a type of construction it is vitally necessary to observe that the connection between the parts on each side of the remaining tooth be made in such manner as to insure, first: adequate strength in the completed structure, and second: a relation between the connecting bar, the tooth, and the gum which will afford opportunity for cleanliness

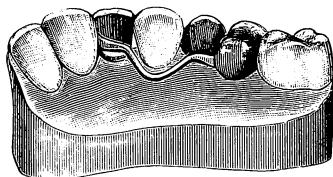


Fig. 295.

admit of the normal occlusion, and offer as little obstruction to the movements of the tongue as possible. To obtain the latter features the bar should rest lightly upon the gum but should *not* come in contact with the natural tooth.

This connecting bar should be made of round iridio-platinum wire, 14 to 16 g, and should be cut the proper length, the ends then flattened on the anvil, and the desired adjustment made to the model just prior to investing the case. (Fig. 295.) The application of the principle to two typical cases is illustrated in Fig. 296.

Saddle Bridges.

As previously indicated under the caption of "classification" the term "saddle bridges" is applied to that type wherein the body of the bridge which supports the "dummies" intervening between, or adjacent to, the abutments, is conformed to the outline of, and placed in direct contact with the contiguous soft tissue.

The practicability of this method has long been, and indeed perhaps still is a somewhat mooted question, but it may nevertheless be safely asserted that whilst the possible virtues of the principle involved will increase or diminish in proportion to the degree of accuracy obtained in the adaptation, the *utility when judiciously employed*, is unquestionable.

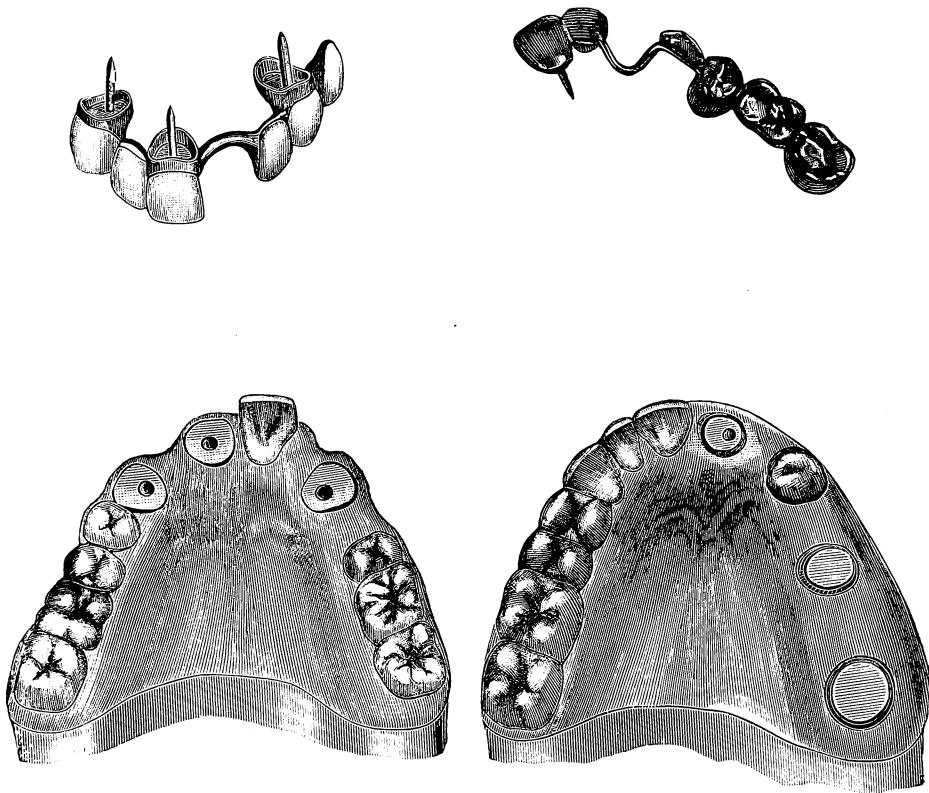


Fig. 296.

Preliminary to the general indications for the **Indications.** employment of this type let it be said with emphasis that they are first governed entirely by the ability of the operator to recognize and appreciate the requirements of *judicious* application, and then to skilfully execute those of *accurate* adaptation.

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Excessive Absorption.

In cases of excessive absorption where gum restoration is demanded, as illustrated in two classes, for example, in (Fig. 297), the employment of a "saddle" is as essential as is the proper selection and arrangement of the artificial substitutes themselves, for the reason that, in fixed bridgework, only by such means may the required restoration and its proper adaptation be effected.

Extension Bridges.

The use of the saddle is also indicated in extension bridges where one or more posterior teeth possessing masticating surfaces, or to be subjected to masticating stress, are carried anterior or posterior to the abutment or abutments. In such cases the abutments must, of course, necessarily possess sufficient strength *per se* to afford ample

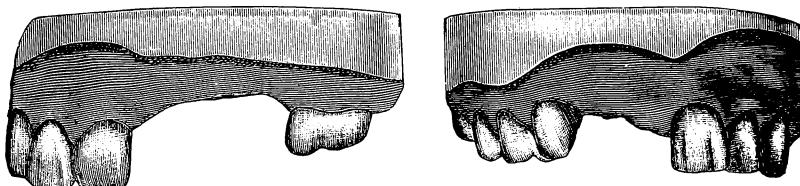


Fig. 297.

and permanent support to the dummies, and the occlusion should be such as to throw a preponderance of the stress imposed upon the roots supporting the work, but a proper rest upon the tissue will then enable the dummies to offer and sustain a degree of resistance sufficient to make them comfortable and serviceable. If such a condition is not obtained, and the work assumed by the dummies is thrown entirely upon the abutments, it is but natural to expect the destruction or displacement of the piece, or the ultimate loosening and loss of the roots.

Unfavorable Occlusion.

In those cases where the position of the opposing natural teeth, or the absence of some of them, necessarily throws the greater portion of the stress of mastication upon the dummies, and perhaps even precludes any occlusion of the abutments, a rest upon the tissue beneath the area of greatest stress is indicated. The relief thus afforded to the abutment roots, especially where the span is a long one, and the additional strength given to the piece at its weakest point will often admit of the practical and permanent application of a "fixed" bridge which would otherwise prove a failure. Fig. 298.

Also in conditions known as "close bite," the employment of the saddle may be indicated as a means of obtaining strength in the completed structure.

**Porcelain
Bridge-work.**

The use of the saddle is particularly indispensable in porcelain work, for the reason that the friable nature of this material demands that such portions of it as form masticating surfaces and which are to be subjected to masticating stress must be protected and supported. Since the strength of this material increases in proportion with its bulk, as much as is consistent must be used in reproducing contour, and the saddle affords the only adequate means of supporting the superstructure;

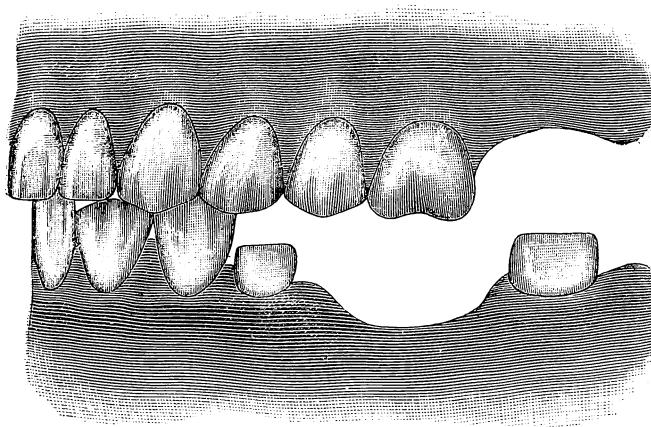


Fig. 298.

hence, from this viewpoint, it makes possible the more permanent success of this class of work.

Contrary to the generally accepted belief that **The Saddle from a Hygienic Viewpoint.** a saddle is decidedly unhygienic, such a device is frequently indicated in order to obtain *a closer approach to an hygienic result.*

For instance, in cases where the morsal surfaces of the opposing teeth in occlusion, are in close proximity to the tissue in the space to be bridged, a condition commonly called a "close bite," and where the dummies to be supplied must possess a masticating surface in order that such a bridge may be serviceable as well as ornamental, the use of a well adapted saddle will result in a far more hygienic condition than the *lingual shelf* formed by the attachment of cusps to the facings.



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While in such cases the cusps should not be large bucco-lingually, and the lingual surface of each dummy should be properly contoured, if possible, the surface of a bridge brought into close contact with the tissue will often be found far more hygienic than the absolutely inaccessible recesses resulting from the usual method of construction. In this connection the surface of a well adapted saddle, and the possibilities for gum reproduction and lingual contour afforded by it, will often render the work cleaner and more comfortable to the patient than the ordinary construction, which with every favorable opportunity is often neglected, even by well-advised and scrupulously cleanly patients.

The question very naturally arises as to just what condition the tissue under such circumstances may ultimately present, and what, if any, physiological change or pathological disturbance will occur.

Upon the removal of such bridges worn from three to five years, where the adaptation had been good, the surfaces of the saddles have been found clean and comparatively free from accumulations, except some little exfoliated epithelium; the patients had experienced no particularly unpleasant taste nor offensive odors, and the tissues, while presenting a slightly reddened, somewhat congested appearance, due perhaps to a superficial capillary stasis, as a result of the pressure, indicated no marked evidences of soreness, inflammation, hypertrophy nor resorption. Such results could only be expected, however, where a good, close adaptation without irritating influences existed.

Whatever merit and advantages a saddle may possess, and however useful it may sometimes prove, however, there are conditions contraindicating its use quite equal in importance to those demanding it, and these must be observed even more closely in order to preclude the evil results of an unnecessary, unwise, or injudicious application.

In bridges extending anteriorly to the second **Contraindications.** bicuspid where no masticating surface is necessary, as has been said, it is often practical to carry one "dummy" without any support upon the tissues beneath it, but in such cases the abutment from which it is extended should, of course, possess sufficient strength, and should assume a preponderance of the stress imposed.

The saddle is also unnecessary, and consequently contraindicated, in those cases where the abutment roots are close enough together and sufficiently strong to withstand the stress assumed by the entire fixed structure; where the occlusion is favorable, and where every opportunity is afforded for the self-cleansing contour of the lingual surface.



The saddle is also contraindicated in all cases where thorough and complete absorption of the tissues has not taken place. If this is not observed the subsequent absorption will not only destroy the usefulness of the saddle, but will result in a decidedly unhygienic condition.

As the success of the saddle is so dependent upon a proper and sufficiently close adaptation, it is also, of course, always contraindicated whenever and wherever every facility is not offered for such relation.

A consideration of the requirements must begin by repeating and specially emphasizing the assertion that the success and usefulness of a saddle will increase in proportion to the accuracy of its adaptation. It must fit the tissue perfectly and must rest upon it with *uniform pressure* at all points so as to afford some little relief to the abutments, and to preclude the infiltration of food-laden secretions between it and the tissue upon which it rests; yet, of course, not sufficiently hard to cause capillary stasis, or to induce reabsorption. In *size* it should be *no larger*, nor cover a greater area *than is absolutely essential* to the work to be assumed by the teeth it is intended to support, and the *edges* should be *rounded* and *smooth*, so as to exert no possible irritating influence. It should also be made of a metal which is least susceptible to the chemical action of the secretions. For this reason the use of *platinum* is universally indicated, because, this metal is least affected when subjected indefinitely to such action, and, in consequence, will more permanently retain its color and lustre, and remain cleaner, than gold of any degree of fineness.

The importance of adaptation has already been mentioned, and while various methods of procedure have been suggested and employed as a means of obtaining this, it is often accomplished with difficulty and uncertainty. The following method, however, will overcome many obstacles and insure a degree of accuracy which will add much to the practicability, serviceability and cleanliness of the saddle. The "attachments" or "abutment pieces" should first be completed as usual and adjusted to position on the roots. An impression of them and the intermediate or adjacent tissue should then be taken with plaster. If the crowns are withdrawn in the impression they should be removed therefrom and laid aside for the time. The open ends of the impression should then be filled in with moldine or plaster, and, if necessary, the whole may be built up or extended sufficiently to give adequate body and strength to the metal model, or die. After drying, the die should be secured with any fusible alloy, and this will, of course, present a perfect reproduction of the abutment pieces in position, and their relation to the tissue upon which the

PROSTHODONTIA

saddle is to rest. This die should then be built up, as above suggested, in order to form a matrix for the counter-die, in which it is only necessary to leave the surface of the crowns, or attachments, presenting toward each other, and the *ridge*, exposed. After coating the exposed surfaces with a thin solution of whiting, which will be found to be the best and cleanest separating medium, the counter-die may then be easily obtained with the same alloy. Die and counter-die are shown in Fig. 299.

Thirty-two gauge platinum, or, iridio-platinum if stiffness is desired, should then be swaged and trimmed to the required form. Twenty-two karat gold of the same thickness may be used in an emergency, but the former is preferable.

The shape and conformation of the tissue upon which the saddle is to rest, and the size of the dummies to be supported, should guide in the shape and form given to it. In broad, flat ridges the saddle may be proportionately larger, of course, than in thin, sharp, narrow ones, the usual width varying from three to five-sixteenths of an inch, except-

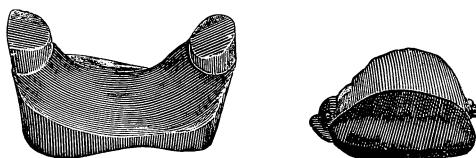


Fig. 299.

ing that in the latter class, in the lower jaw, the convex surface of a half-round wire of suitable size, placed in contact with the ridge, will often answer nicely. When the wider saddle seems indicated, however, and particularly in the upper jaw, it is usually best to leave it full width immediately beneath the dummies only, by cutting it away to some extent in the interproximal spaces as originally suggested by Dr. W. H. Taggart. (Fig. 300.) Such a shape affords opportunities for sufficient support and lingual contour beneath the dummies, and especially in gold work, less conspicuous and cleaner interproximal spaces.

When properly swaged and trimmed the "attachments" or abutment pieces should be adjusted to position and the saddle finally adapted and trimmed to the desired outline, in the mouth. Each end should be fitted so as to come in direct contact with the crowns or "attachments" when slight pressure is applied, and the edges should not be allowed to lap over upon them, as such a joint would destroy the assurance of accuracy of adaptation of this more or less vulnerable point.

ITEMS OF INTEREST

It now becomes necessary to preserve an absolutely accurate relation between tissue, saddle and abutment pieces until the same is permanently sustained by soldering. This can be accomplished by taking an impression of the parts in position, in plaster, with sufficient pressure upon the

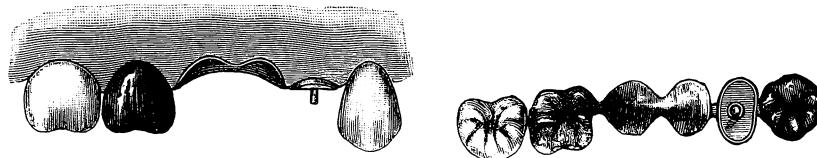


Fig. 300.

saddle to insure a slight bearing upon the tissue. This may be secured by the use of a prop of orangewood, of suitable length to keep the mouth open, with one end resting upon the center of the saddle and the other against the opposing teeth or ridge. (Fig. 301.) With this so ad-

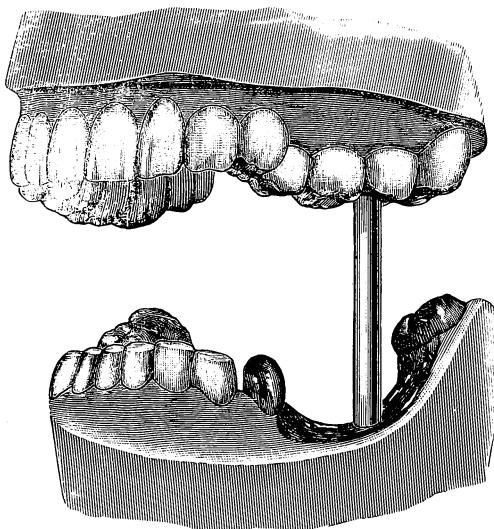


Fig. 301.

justed, and a firm closure upon it, the saddle is gradually and gently forced against or into the tissue, when the impression can be taken without relieving the pressure. For this purpose may be used an ordinary impression tray with a slot cut into it from the heel sufficiently wide to

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accommodate or straddle the prop, so that when filled with plaster it may be easily carried to place. (Fig. 302.) By such means a uniform pressure such as may scarcely be obtained in any other manner is sustained, and the closeness of the relation is proven by the fact that the plaster seldom penetrates beneath the saddle in taking the impression.

If this method is not employed similar results may be obtained by tightly fitting a wedge of wood between the abutment pieces, and then closely packing a rather stiff wax, or temporary stopping, between the

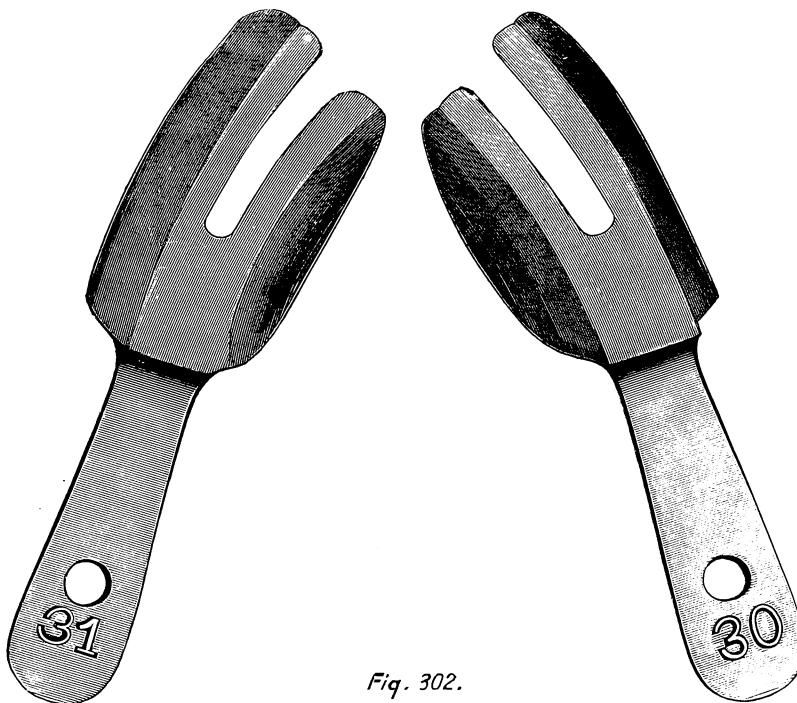


Fig. 302.

wedge and the saddle in such manner as to hold the latter firmly in place against the tissue. Care must be exercised, however, to leave at least the edges of the saddle so exposed as to obtain an imprint in the impression which will insure its proper replacement and retention therein after removing and before filling. (Fig. 303.)

When the impression has been secured it should be varnished and then filled with *investment material*, which, after separating, will admit of the permanent attachment of the parts with solder. The piece should then be replaced in the mouth and the edges of the saddle carefully

burnished to a close and accurate adaptation with a suitable and fairly heavy burnisher, when the "bite" and final impression for the completion of the work should be secured.

These orangewood props, or wedges, should be cut in various lengths to meet the requirements, and may be made applicable, where there are no opposing teeth, by covering the end which rests upon the tissue in such cases with a cushion of modelling compound or sealing wax. (Fig. 304.)

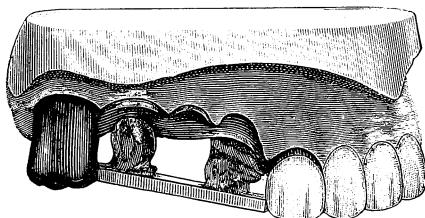


Fig. 303.

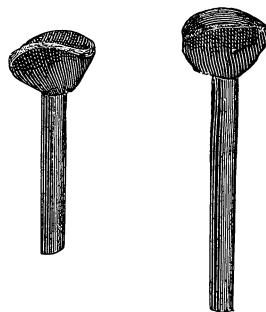


Fig. 304.

In the mounting of fixed bridges where a saddle is used, several precautions must be observed. Those, together with other closely allied considerations, will be subsequently presented and fully discussed under the subject heading of "mounting."

Extension Bridges.

The type known as "Extension" bridges embodies the extension of one or more "dummies" anterior or posterior to the abutments, either with or without a "saddle" resting upon the contiguous soft tissue, and excepting in those cases previously mentioned where a *single tooth is suspended* from a single abutment, is without doubt one of the most pernicious practices incident to the application of "fixed" structures.

Whilst the principle involved in nearly all types of construction other than those mentioned is mechanically wrong and much injury to, and even the possible loss of the supporting teeth, may result, yet there are occasional instances where the application may be made more or less practicable.

Such instances are necessarily confined to those cases where the conditions may be, or are, made favorable by the ratio between the stress received by the "dummies" so extended, and the inherent strength and stability of the abutments themselves.

For instance, as has been previously stated, certain teeth in the arch

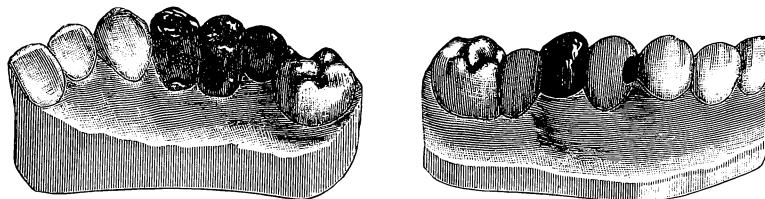


Fig. 305.

are quite capable of supporting a single extended "dummy" under the conditions mentioned in connection therewith (see "*principles*"), but no one tooth will support *more* than a single dummy in any conceivable manner, for any length of time.

The practice, therefore, of suspending even a small "dummy" on *each*

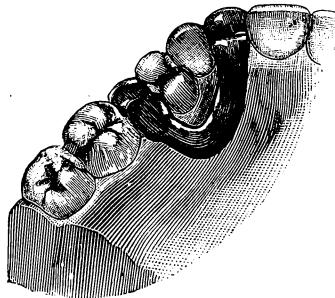


Fig. 306.

side of a single abutment, which unfortunately is sometimes observed. (Fig. 305), is so remote from sound mechanical principles and even from reason and common sense, as to be vicious, and the see-saw, teter-board movement thus invited will invariably result in the very early loss of the supporting tooth.

Another practice not uncommon is the extension of single anterior

dummies from posterior abutments with remaining natural teeth intervening, as shown in Fig. 306.

While some means of supporting substitutes for missing anterior teeth without involving the mutilation of adjacent good sound teeth would be eminently desirable, it must nevertheless be remembered that in proportion as the point which receives the stress is removed from the fulcrum, or point of resistance, the stress becomes increased, and the resistance correspondingly diminished, and that under such influence, therefore, the displacement or loss of the supporting tooth becomes only a question of time.

Granting that the abutment thus employed may be so supported by the roots of the adjacent teeth as to fortify it to a greater or less extent against displacement, and granting also that the extension bar may first be swaged of pure gold, and thus well and closely adapted to the tissue upon which it rests, and may then be stiffened and strengthened

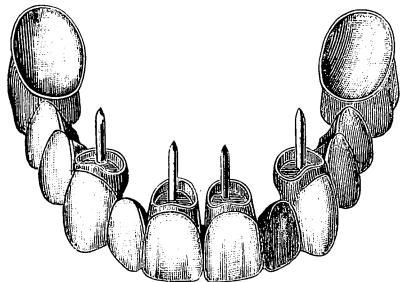


Fig. 307.

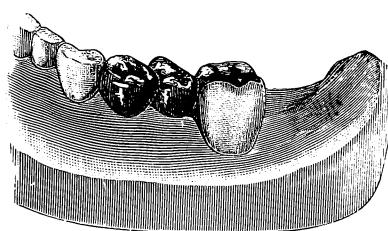


Fig. 308.

by clasp metal and solder, all of which is necessary, it nevertheless rests upon soft tissue, which, together with the elasticity of the metal would necessarily admit of some movement under stress, and as a result the extension bar would soon become imbedded in the soft tissue; the suspended "dummy" become too short; and the tissue beneath both so hyperaemic and inflamed, that the supporting tooth would prove unequal to the demands, and the fixture would become a failure.

It is therefore evident that such a type of construction should only be used in rare instances, as a last resort, or, for temporary purposes, if indeed at all.

Perhaps the most favorable situation for the employment of this particular type of construction aside from those already mentioned as applied to single adjacent teeth, would be in such cases as illustrated in Fig. 307, where two or possibly three posterior teeth upon one or both sides may be extended from several anterior abutments.

In such cases if a supporting "saddle" were adapted in accordance with the requirements, and the occlusion then made hardest upon the anterior teeth; or, if the opposing teeth were artificial, or some of them absent, some hope may be indulged for the serviceability and permanency of the fixture, but this will then be in proportion as the stability of the supporting teeth, and the condition of the contiguous tissues may be favorable.

Also, another class of cases where such principles may be applied with some hope of reasonable utility and permanency is sometimes

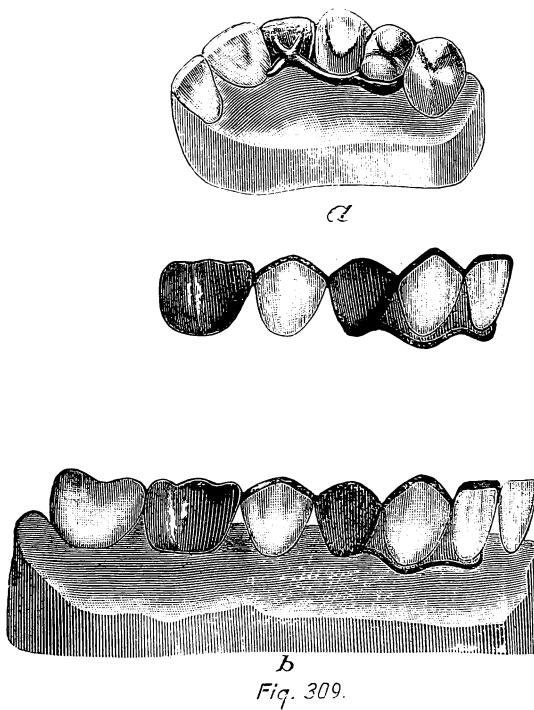


Fig. 309.

found where all of the molar teeth are missing in the lower arch, and where for cosmetic reasons as well as from a viewpoint of possible utility it may be desirable to supply one molar on each side.

In such instances if the occlusion and other environments are, or may be made, favorable, the *two* bicuspids may be used to support *one* suspended molar tooth, but in *no* instance *more than one*, and this should be supported by a well adapted saddle, and the occlusion so adjusted as to be harder upon the abutments than upon the dummy. Such cases have been known to work successfully for a number of years. (Fig. 308.)

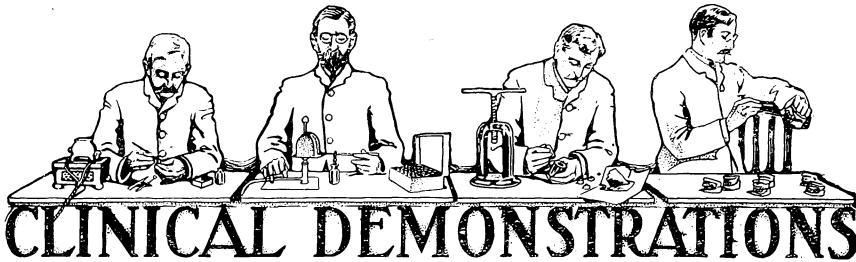


Another type of construction in which the first bicuspid is used to support a missing lateral, thus combining both the "interrupted" and "extension" principles—which is practicable under favorable conditions—is shown in Fig. 309A, and still another class of cases where the number, stability and position of the abutments may admit of extending even two dummies anterior to them with reasonable assurances of success and permanency, is illustrated in Fig. 309B.

In such instances it will be observed that but little actual work is required of the "dummies" thus extended, as compared with that assumed by the rest of the structure, and this accounts for the possible practicability of such application. Whenever possible it is usually best in the latter instance, however, to add to the support of the extended "dummies" by means of a well adapted saddle.

(To be continued.)





Gold Inlays without Solder.

By ALEX. JAMESON, D.D.S., Indianapolis, Ind.

Clinic before the Pennsylvania State Dental Society, June, 1905.

After preparing the cavity for an inlay, I obtain an impression in modeling compound (that made by the Detroit Dental Mfg. Co., I prefer). This is mounted in a rubber ring filled with soft plaster, in such a way that it will be the bottom of a cavity which is otherwise cone-shaped. Into this cavity I fill, either amalgam or achite cement, and allow to harden. After separation I have a model of the cavity in one of these substances. This model I mount in plaster or compound in the little steel ring which goes into my swager. Although it is not absolutely necessary I usually take a piece of pure gold, 33 or 36 gauge, and annealing several times make a matrix to approximately fit this model, finishing the matrix by means of the unvulcanized rubber and the pressure of a heavy hammer. If I have any doubt about the accuracy of my impression, I fill this matrix with hard wax and try into the original cavity, and just here allow me to say that if I have used archite this process has not taken so long that I could not keep my patient.

Presuming that the fit is perfect I trim all edges practically as far as necessary, remove, burn out the wax, and replace in the model. Now with any of the fibre golds, annealed as for filling, I press quite a large mass into the matrix (in place), and proceed to partially consolidate against the walls and bottom of cavity. The ring with model and matrix, etc., is now placed in the swager and a piece of tissue paper is placed



over the gold; unvulcanized rubber is placed over the paper and the plunger after being put into position is driven down hard with the hammer. After taking the ring out the paper is removed, and the piece is annealed. After it has cooled (dry) it is replaced and the process continued until you have a homogenous filling thoroughly condensed. The rest of the process is the simple one of placing in the cavity and trimming, polishing, etc. Where you have doubts as to condensation, or where you want a harder filling for masticating, you may, if you wish, add solder to the outside in such quantities as you may deem necessary.

I will say that I have shown inlays made in this way to other dentists and in some instances have had a hard time to convince them that they were not gold fillings, so accurately were they placed and so good was the color, being pure gold. I do not claim that there are many advantages in this process. I will say, however, that given a large cavity properly prepared I can take an accurate impression and complete and set the inlay in a much shorter time than I can fill the tooth or make an inlay in any other acceptable way.

A few words about the swager: It is one I had made at a machine shop, of steel, the dimensions are $\frac{7}{8}$ long by $1\frac{3}{8}$ diameter outside. Inside diameter, $11/16$. Plunger fits snugly and is one inch long. I have several steel and brass rings which slip inside and are about $\frac{1}{4}$ inch high; in these I mount models, etc. This swager may have a special base, or may be simply placed on a heavy plane metal plate as a die plate.

A Simple Method of Replacing Broken Facings on Crowns and Bridges.

By Dr. M. R. BRINKMAN, Hackensack, N. J.

Clinic before the New Jersey State Dental Society, July, 1905.

The instruments necessary include two drills (one for the regular hand piece and one for the right angle); one die, one tap and holder, one wheel bur and one pair of pliers.

To replace a lost facing proceed as follows:

Cut the pins from backing, and with a small carborundum stone slightly concave the backing so that the facing will bear firmly on the edges of the backing.

Select the proper tooth, hold it carefully in the required position, and mark with a pointed instrument the exact points to be drilled in the backing, for the reception of the pins.

Drill the holes slightly diverging from the center; then use the tap to cut a thread in the same.

With the wheel bur cut a groove on the buccal side of backing between the holes for clinching the pins.

Take the die and cut a thread on the pins of the tooth; you are now ready to cement the tooth in place.

Mix the cement fairly stiff, apply to the backing and force the facing firmly into place. Hold it in position and with the pliers pinch



the pins into the groove. Allow the cement to set, then grind the pins flush with the backing. This completes the operation.

You will note that the facing is firm and the result will be durable and is accomplished in a short space of time.

The special point of retention differing from other methods is the interlocking of the thread on the pins with the thread in the holes of the backing.

Two other points of retention are the cement and the clinching of the pins which have been in vogue for some time.



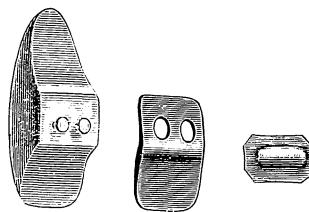
By using a small inverted cone bur and cutting out the cement on both sides of the pins a gold or amalgam filling can be inserted in the backing, although it will not be necessary for the retention of the facing to do this.

The Use of Rubber Teeth as Removable Facings for Anterior Teeth in Bridgework.

By Dr. GEO. H. LEGGETT, New York, N. Y.

Clinic before the Pennsylvania State Dental Society, June, 1905.

Select appropriate rubber teeth of as thin a mould as possible. Grind to fit gum; also grind off the basal ridge between the pins and cutting edge.



Fit a backing of 22K. 30 gauge gold to the tooth, having the holes of ample size to go over the pin heads easily, and burnish the edges well.

Another piece of gold, preferably 24K., is laid on a piece of soft wood, and with a ball burnisher, a trough-like depression is burnished in it as deep as the pins are high. This is trimmed and placed over the backing on the tooth and burnished down. Remove the two together and fasten with a touch of solder. This gives a backing with hollow box for reception of pins and cement.

Replace, wax up on model, remove facings, invest (being sure that the investment fills the spaces where the pins are to go), and solder. After finishing, facings are put on with Evans's crown and bridge cement, or oxyphosphate.

The advantages are greater variety of teeth from which to select, and more natural looking moulds. Facings do not go into the fire. Shade may be modified by the cement used. Easy repair in the mouth. Does not require a special tooth. Can be repaired by any dentist if patient be traveling.

Ready-Made Matrices.

By Dr. H. W. ARTHUR, Pittsburg, Pa.

Clinic before the Pennsylvania State Dental Society, June, 1905.

Material, sheet steel, No. 33 gauge.

Instruments, curved shears, contouring pliers, plate punch, carborundum wheel.



Fig. 1.

The flat form (Fig. 1) is contoured with pliers, to pass around the embrasures buccal and lingual. The lip is bent half over along the dotted line. The lip is a special feature.

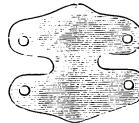


Fig. 2.

The double slip flat form (Fig. 2) is doubled one part on the other, and contoured to meet cavities approximating in the same space. Application.—The matrix is sprung into place around the embrasures, buccal and lingual, *wedged close* at the cervical third, yielding at the middle third and more so at the occlusal third.

The lip rests on the mesial or distal ridge of the approximating tooth; it prevents forcing the matrix onto the gum, helps to stay the matrix and affords a rounded edge which aids in filling.

The results attained are exact adaptation of the filling material at the cervical margin, full contour and approximal contact by the yielding

of the matrix. The wedging of the filling material does away with all necessity for special wedging. The holes, simple as they are, are valuable aids in removing the matrix.

Contouring with the Crenshaw Matrix.

By SAMUEL DOSKOW, White Haven, Pa.

Clinic before the Pennsylvania State Dental Society, June, 1905.

The chief characteristics of the Crenshaw matrix are absolute fixity, close adaptation of the band against the cervical wall and economy of material. The cavities are to be prepared in the usual way, extending gingivally, buccally and lingually. A step is formed either of the dentine, or of cement, in case of devitalized teeth. The matrix is inserted with the set-screw on the lingual surface of the teeth and fastened in place by it until a slight separation of the teeth is effected. (Fig. 1.) A ball burnisher is then used on the inner surface of the band facing the cavity

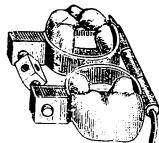


Fig. 1.



Fig. 2.

to be filled until it touches the band that surrounds the approximating tooth. The cavity is filled one-half or two-thirds full, either with soft gold or Pack's semi-cohesive cylinders, which is preferable, and finished with cohesive gold. To remove the matrix, loosen the set-screw, remove the connecting bar from the buccal surface and lift the band that is not against the filling first, when the entire matrix will come out without any trouble. The finishing of the filling is reduced to a minimum. (Fig. 2.)

SOCIETY PAPERS



The Retraction of the Right Half of the Lower Jaw After It Had Been Displaced by the Removal of the Left Half.

By MORTON VAN LOAN, D.D.S., Albany, N. Y.

Read before the Union Meeting of the Third and Fourth District Dental Societies of the State of New York, Oct. 17 and 18, 1905.

In presenting this paper I wish to state that it is my object to give to the profession a few facts that I have obtained by experimenting with this case for the last eighteen months.

The patient, Mr. O. T. S., sixty years of age, native-born American, a miller by trade and a man of good habits, went to the Albany Hospital in January, 1903, and had the left half of his lower jaw removed for the treatment of an osteo-sarcoma.

History of a Case of Resection of Lower Jaw. which had started in the region of the first molar tooth. The jaw was sawed in two at the middle of the mental portion, disarticulated at the temporo-mandibular articulation, and the left half entirely removed. As in all such cases, the right half (or vice versa, the left), swings cross-wise. (Fig. 1.) The patient's physicians, finding this condition after the wound had healed and that the patient was unable to chew any solid food, and that speech was difficult, and also that the patient drove considerably, made inquiries as to whether something could be done to remedy this trouble, but these inquiries seemed to be fruitless.

In April, 1903, Dr. James N. Vanderveer, who is a great friend of mine, and who had become interested in the patient, sent him to my office, and in the meantime telephoned me the conditions. He asked me to examine the patient and see if there was any way by which he could be relieved. I saw the patient and found the conditions as described.

(Fig. 1.) The mouth was so contracted from the cicatrical tissue on the left side of the face that it was difficult to get one finger back to the second molar tooth on the upper jaw. I had seen skulls with jaws in this condition, but I had never seen it in a living man. I had never seen any literature on the subject and I had never heard of any



help for such cases, but we thought that it would do no harm to attempt relief.

We first conceived the idea of constructing an apparatus, the framework (Fig. 2) to fit on the first bicuspid and second molar, upper left, second bicuspid and first molar having been removed at some previous time. The framework consists of gold caps connected by a semi-lunar platinoid wire; the wire being quadrangular instead of round. The framework is covered with vulcanite, and shaped as shown in Fig. 3, with groove (a). The piece is cemented fast to the upper teeth.

On the lower jaw we constructed an apparatus, the framework of which is shown in Fig. 4, and teeth were put on to take the place of

some I extracted because they were so loose as to be useless. I removed the central and lateral incisors and cemented this framework to the lower teeth. The vulcanite was made so as to cover the end of the lower jaw, and brought up to a point (a) as shown in Fig. 5. This point was made to play in the groove on the piece in the upper jaw. The groove was made on an inclined plane, passing forward, outward or to the right, and upward, so that when the patient shut his mouth, and the jaws came together, that groove with the point playing in it. pushed the right half

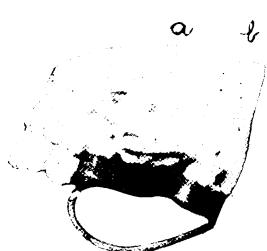


Fig. 2.

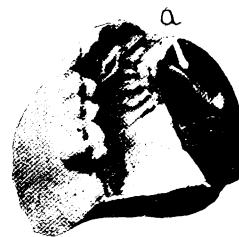


Fig. 3.



Fig. 4.

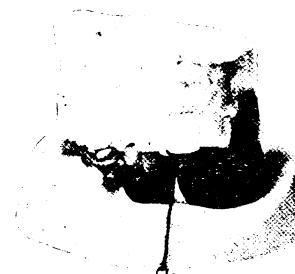


Fig. 5.

of the lower jaw forward and outward so as to bring it back into its proper place. It worked on the principle of an inclined plane or wedge, one of the most powerful leverages in mechanics. This was a slow process of stretching, taking up the slack every few days by adding a little more vulcanite to the groove. The upper piece was not cemented to the teeth at first. This was not done until the lower jaw was back in place, or naturally articulated. It was put on with gutta percha each time till the last, and then cemented.

When I first saw the case, the jaw was as in Fig. 1. By main force we could pull it around until the mental portion of the lower jaw was near the region of the upper left cuspid. From there to the natural articulation it was a total stretch of about one inch at the cuspid

or lateral incisor, and at the molar about a quarter of an inch, showing that it rested at an angle. (Fig. 5 shows the completed operation.)

When I had obtained this result I thought that I had finished. The patient could chew and talk and I thought that I had accomplished considerable. It was a little clumsy but I could not think of any better plan. One objection to it was that I was unable to take out the apparatus to clean it, but I felt that I had done my best. They were necessarily cemented in, because they had to be very strong and solid to stand the unusual strain of the continual stretching. If either of these pieces was taken out, the jaws would go back in a few hours to their original positions.



Fig. 6.



Fig. 7.

At this point I showed the case to Dr. M. H. Cryer, of Philadelphia, and he suggested that I should make such an apparatus as is shown in Fig. 6. He did not tell me how to make it, but this shows his idea as nearly as I could judge, and I wish to give him full credit for the suggestion. His idea was that if the apparatus which I already had in the patient's mouth ever gave out, I could make such a one as he suggested, but as I told Dr. Cryer, I could not make use of such an apparatus as he suggested then, for I would not have time to make it before the jaws would go back to their original positions, and even if I did have time the apparatus would not be strong enough to hold the jaws in place, and overcome the contraction of the tissues.

We left the apparatus as it was, and the patient wore it for about thirteen months. It was quite comfortable in his mouth. I met him on the street one day about the end of that time, and he told me that it seemed to be loose and hurt him. I told him to come in and see me, and let me look it over. He did so and I found that the upper piece had become uncemented from the second molar; and that it was only fastened to the first bicuspid which had been loosened by the strain.

I took the whole apparatus out, tooth and all, and found that the mouth had then become so stretched and flexible that I could take an impression of either jaw, which had been impossible before. I then

made the apparatus shown in Fig. 6. The mouth was so flexible and so thoroughly stretched, that while I took five days to make the apparatus, the jaws did not go back a fraction of an inch in that time.

The apparatus, the framework of which is shown in Fig. 7, consists of gold bands surrounding each tooth except the molar which has a clasp instead of a band, as shown, which allows it to be tightened when the piece works loose in the mouth, by this means tightening the whole. These bands are all soldered together. On the inside, also soldered to all these bands is a quadrangular silver-platinum bar, perhaps better made of iridio-platinum. This bar should be very strong so

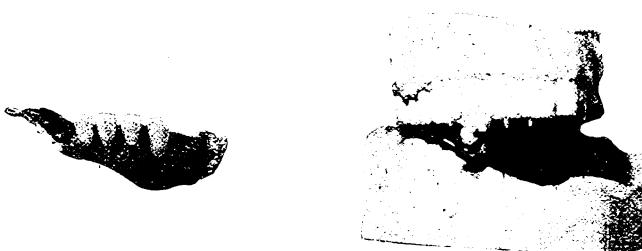


Fig. 8.

Fig. 9.

that it will not bend. On the outside soldered to these bands and connecting each one with the next is a half-round gold wire ending in a hook (at a). This should also be quite strong. Then over the framework vulcanite is placed, getting its shape from the impression taken of the mouth and the inside of the cheek. Four teeth are placed in front as seen in Fig. 8. On the inside the vulcanite runs two-thirds of the distance. There are little holes between the bar and the point where the bands curve in toward the teeth, which give the vulcanite a very strong attachment and allow it to lie up against the side of the jaw, and therefore give stability to the piece. This piece is not cemented to the teeth, but only slides into place and is held there by its adaptation to the jaw, and can be taken out by the patient to be cleaned, etc., like any vulcanite plate.

Figures 6 and 8 are the lingual and labial views of the finished piece. Figure 9 shows the two jaws in perfect articulation. To prove that this is so, I show you in Fig. 10 the patient with the same articulation and Fig. 11 the patient as he is today.

ITEMS OF INTEREST

Cause of Retraction of Jaws.

What is the cause of this retraction which you have just seen remedied? Dr. Cryer says that the internal pterygoids pull the jaw around crosswise. That is true as far as it goes, but the Doctor does not go far enough, for that is not wholly right, as the action of the internal pterygoid is greatly overcome by the actions of the temporal and deep portions of the masseter, which is proven by the fact that after the patient had worn the first apparatus a year, and I had



taken it out of his mouth, the jaw did not go back crosswise; although he could pull it crosswise, for Fig. 1 was taken while doing so, giving me the same position or nearly so as it was in eighteen months ago, when he first came to me. Unfortunately, I have no picture of the patient taken at that time. He looks stronger and healthier now and the lip is not nearly as prominent as it was then. It was very disfiguring when he first came to me. During the stretching period the patient lost about twenty pounds. The pain was very severe. As soon as he was com-

fortable he regained his flesh, but he did not regain his strength until the final apparatus was made. At will he can pull his jaw crosswise, move it again to the natural articulation, and do so fully as much if not more, than a person with a perfect jaw can. The principal cause for the retraction is that when half of the jaw is cut out in this way, there is a great deal of cicatricial tissue when the wound heals. That point is unquestionable. Now what is the character of this cicatricial tissue either from traumatism or the knife? Everyone knows that it is fibrous



and contracts with great power. If you doubt this ask anyone who has treated a case of fibrous ankylosis from traumatism. Hence when the wound heals in these cases the cicatricial tissue contracts, taking the tissues of the face along with it, and also the jaw. No direct power can pull the jaw back, but by force constantly applied we can stretch it back and hold it there. We have seen that, and also that all that is needed is a little fullness in the cheek to hold it, restoring the natural articulation, and giving some fullness to the face. Therefore the success of the operation.

The operation for the osteo-sarcoma was performed in January, 1903, by Doctor A. W. Elting, of Albany.



**Sarcoma
Cured.**

Formerly, the history of all such cases has shown that the sarcoma returns, or that the patient droops away and dies from the condition of his mouth. After twenty-one months there are no signs of any recurrence of the sarcoma. A triumph of the medical profession. The biggest triumph for the dental profession, and the best endorsement it could have, is, that after wearing this new apparatus two months, the patient had so regained his strength, that he went to work at his trade, a healthy, useful, able-bodied citizen. Three weeks ago he told me that with the help of another man he was running a mill which was turning out over three hundred barrels of flour a week, and that he eats anything and everything, even young, tender corn off the cob.

In closing this paper I wish to state that this case has been an evolutionary one. What you have seen is the finished product. Much has gone before. I am indebted to Dr. M. H. Cryer, and to the members of the Third District Dental Society of the State of New York for many valuable suggestions. I feel that this case is simply the result of the development of dentistry. We owe little to the present, but much to past generations; and what little we can add, let us give freely to the future.

"The Aims of Higher Dentistry."

By Dr. J. E. POWER, Providence, R. I.

Read before the Third and Fourth District Dental Societies of the State of New York, October, 1905.

It is eminently desirable that a dentist be generally well-informed on the principles of medicine, and also that he be a skilled practitioner. It is quite possible to be one and not the other. The combination, however, will elevate the dental profession. The tendency until recently has been rather to produce simply mechanical skill leaving the first to develop itself or to remain in an imperfect stage of evolution.

We have, however, been made to understand that in the practice of dentistry, cases will present where a knowledge of the functions of all of the organs is absolutely necessary, in order to treat properly a special malady in any one of them. Hence, a knowledge of medicine, but not necessarily a degree in medicine, is required of the dentist of today, since we must possess a general knowledge of the anatomical and pathological conditions of all the organs in order to treat scientifically and intelligently a malady in any one of them; treatment to be sound and scientific must be based on pathology. This education is, and must be,

largely developed after we have been graduated from our respective colleges, since the mission of a medical or dental college consists simply of giving us the principles which underly these great subjects—to simply direct, as it were, the minds of the individuals into the channels which lead to a better and more comprehensive knowledge of the branches of science upon which the whole future of medicine and dentistry is based.

Of course, nothing can replace experience, but it is very valuable to have a detailed record of the experiences of others upon which to base our work, and it is the duty which every professional man owes to himself and to his profession to place on record every case where the conditions treated and the results obtained are sufficiently interesting, that they may assist in bringing about favorable results in similar cases; all of us should be inspired sufficiently by the interest in the progress of our profession to become individual sense machines for registering observations. Nor should we forget that the human mind is capable of receiving only a certain number of impulses or ideas, and also that no human being can possess a monopoly of all the progressive ideas of a profession or branches thereof.

In the early ages it was the ambition of all learned men to become oracles in all branches of science, to spread themselves over the whole realm of it, thinking that it was only a question of time, ability and capacity, and like Bacon they took all learning for their province. Thus, many noble lives were ended in trying to accomplish this impossible task. Later generations realized that knowledge must be stored by many minds, and that to attempt to accomplish so much simply means retrogression, rather than advance, and that by so doing the sciences became stationary.

Following this realization came a separation of medicine or a division of the parts which go to make the whole of this great profession of medicine, and during all this time the art which has now developed into the scientific profession of dentistry was separating from medicine.

Aristotle wrote on dentistry about 350 B. C., and following him were other ancient writers who treated the same subject intelligently, by their writings suggesting the possibilities of dentistry as a profession, but, as I stated before, the actual profession of dentistry was unknown, and it was not until the last century that it became recognized as a distinct profession. Previous to that time it was regarded as but an unimportant branch of the healing art. Today it is universally recognized that dentistry is a distinct profession whose members are sufficiently educated to understand the relation of oral diseases and injuries to other parts of this great system of man, as well as diseases of the teeth, and who are qualified to prescribe medicines either locally or internally, and to per-



form surgical operations whenever necessary for the relief of man's suffering.

When we consider the rapidity with which this profession has won recognition from the other professions of the world, because of the great good accomplished by its members in relieving the sufferings of man and the higher dental education under which its members are trained today, it does seem strange that any person, or profession, should attempt the impossible task of trying to restrict the practice of dentistry to the circumscribed methods of fifty years ago, when it was regarded simply as a mechanical art, whose members were only capable of making plates, inserting fillings, and extracting teeth.

It is true that years ago certain branches of dentistry were practiced by the general practitioner of medicine, and even today teeth are extracted by the country physician. While in many instances the results following such procedure are satisfactory, yet cases have come under my observation where the results were nothing short of malpractice. While the extraction of a tooth is simple, there are many cases where much skill and special knowledge are required, and proportionately greater skill in the other surgical operations which belong to the practitioners of dentistry, who make dentistry a profession. And I say without fear of contradiction, that the physician who undertakes to treat such conditions without this special knowledge subjects the individual to as great dangers as those to which they would be exposed, were a dentist to treat a woman during labor, since the relative degree of knowledge in either branch of science would be the same. It will be objected that I refer only to exceptional cases. I wish it were so, but unfortunately they are every day occurrences.

It is perhaps true that dentistry is of very humble **Origin of Dentistry.** origin, and that certain branches were practiced by the barber and the blacksmith. If this is true, all the more honor to the truly great men, who have assisted in making dentistry what it is today. Of course, there could be little progress in the development of dentistry as a profession so long as the persons practicing it were possessed of such scant qualifications and narrow conceptions of what they really did, or of the possibilities and dangers which might result from such practice. But this is not a fair argument for we all know that even if certain branches were practiced by these ignorant persons, that fact does not necessarily prove that such practice was right. Neither does it suggest that dentistry of today is not broader and does not contribute each day to the scientific world of which it is part, just as much as medicine. I believe there is a way to almost unlimited expansion in the dental profession, and that its origin does not have any

significance for the dentistry of the future, any more than ancient surgery and obstetrics control the surgery and obstetrics of today.

At about the time of the fifteenth century, childbirth was justly regarded as a physiological function, in which pathological conditions seldom occurred, and the practice of the obstetric art was entirely in the hands of ignorant women. History tells us that the first man who dared to attend a woman during labor was killed the following day in punishment for what was regarded at that time as his crime. Again, the surgeon of the early ages was simply regarded as an assistant, perhaps on the same level as the nurse of today. He was simply called by the physician attending the case to perform such operations as the physician directed, but the patient was always under the sole care of the physician, to whom was given all the credit when the life of the individual was saved. The surgeon did not share the credit and in many cases did not see the patient after the operation. But we see today that these two specialties of humble origin have developed into two of the most important branches of the great profession of medicine—obstetrics and surgery.

So then who can say what limitations the dental profession of the future is to have?

It may be true that in dentistry one is obliged to employ considerable mechanical skill, to be acquired by constant practice. Hence, since the opportunities which are presented in the practice of dentistry are almost unlimited, this in itself is sufficient to qualify those of us who choose to practice oral surgery; the surgical procedure in any operation is purely mechanical. If we engage our whole lives in doing work in the mouth, which is agreed upon by all as being highly mechanical, it must be admitted that during this time we are also cultivating a degree of accuracy and a delicacy of touch, as well as familiarizing ourselves with the conditions of the oral cavity, and its adjoining parts, to a degree that can never be reached by the general surgeon, nor by any other person, except a practitioner of dentistry.

The general surgeon is accustomed to having his **Surgical Practices.** field of operation exposed and within his visual range. He is also accustomed to tying the arteries, while the assistant keeps the blood sponged. He always makes surgical and never medical incisions—which simply means he makes long incisions, and when they are on the face, about three times longer than necessary. A surgical incision may be made on the abdomen, but the face of the individual demands more consideration than it commonly receives at the hands of the general surgeon. In view of these statements, which are based on fact, the dentist has greater qualifications to perform



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surgical operations in the mouth, for the following reasons: First, he does, or should, possess an equal knowledge of anatomy, physiology, pathology and bacteriology. Second, by constant practice he is thoroughly familiar with the parts of this cavity. Third, because of this knowledge, he is capable of performing what might be called a submarine operation—he can work underneath the blood or above it, since he does not need to have his field of operation exposed. He seldom is obliged to make external incisions, but when an external incision is necessary, in order to treat a case successfully, he knows how to make a medical incision. This means he makes a small incision, which is regarded by the general surgeon as absolutely wrong. I will show you a case on the screen later where I made a medical external incision, and you can judge for yourselves whether or not such procedure was proper.

Were we to rely upon mechanics, alone, the tendency to retrograde would soon be evident, and since the intelligent and successful practice of any profession require the use of brain power, certain rules must be kept in mind and followed.

These principles are, then, either the result of the fundamental moral law (as, for example, the care to do no injury to one's neighbor), or of the observations and conclusions of our predecessors. Thus is dentistry an experimental science, in the sense that we have reached many of its conclusions by experiment, and that so many of the rules which guide us now are due to the persistent investigation of intelligent men.

Nor should we forget that such rules were not enunciated in a day. There was necessary the collection of many widely separated facts, the minute attention to every detail, the observation of results and, most important of all—the careful classification of all these, in order that principles might be derived from them. Science is truly defined as classified knowledge.

Were dentistry now in its perfection, all investigation would cease. We would simply proceed along hard and fast lines. The contrary, however, we know to be true, and we must keep up with the times. Scientific investigation does, and will, continue in dentistry. It is, therefore, a progressive science and further investigation may even change its principles, and the motto of every dentist should be "Onward! Upward!"

It is my purpose in this paper to outline briefly **Diseases Within the Range of Dentistry.** some of the important pathological conditions which present to us as practitioners of dentistry, the treatment of which belongs to our branch of the healing art. I will also show you cases on the screen wherein I have succeeded in bringing about favorable results after the individuals had been subjected to long periods of treatment by practitioners of medicine,

where, unfortunately, the results were not satisfactory, to either the patient or the operator.

In my description of the oral diseases, I will purposely avoid reference to the various methods of diagnosis, but I will give a detailed account of the principles which have enabled me to correctly diagnose and treat some of these diseases. I will also omit description of diseases of the oral cavity which I have discussed in other papers.

The examination of the oral cavity is of very great importance, and its conditions can nearly always be considered as an etiological factor in ascertaining the diseases of the other parts of the body. For instance, in the diagnosis of typhus, the cutaneous affections known as "*lupus labialis*," which, as its name indicates, appears on the lip, is regarded by the physician as a most important symptom. The infiltrated or edematous upper lip of the child is equally valuable to the general practitioner to confirm a diagnosis of scrofula, while the gums by their appearance will manifest stomatitis, scurvy, or anemia; the mucous membrane of the whole oral cavity will show evidence of syphilis. However, as these diseases, except syphilis, do not interest us directly, I proceed to the common ulcerations of the mouth.

First, we will say just one word about the surgical

Eruption of Temporary Teeth. treatment of infants who are suffering night and day from the pain caused by the eruption of the temporary teeth. I have seen babies suffering untold agonies, with high temperatures and convulsions, and during my service at the hospital, I have had these little tots instinctively place my finger on their gums, pressing as hard as their little muscles were able, and it does seem at least strange that, in this age of science, these little masses of possibilities should be compelled to suffer. Here is a pathological condition which we should all understand—inflammation.

Inflammation. As we all do, or should, understand every change that takes place in living tissue from irritation, the first stage, to suppuration, the formation of pus, or destruction of the part, the last stage, I will simply describe the steps which I feel are necessary in order to make clear the treatment which I prescribe for this condition. We all know that the principal and most important item in the treatment of inflammation is the removal of the cause. We also know that one of the conditions associated with inflammation is an excessive flow of blood to the part, and science has demonstrated that the little blood vessels through which this blood passes are flexible, and might be compared with little rubber tubes whose caliber could be made smaller by any pressure exerted upon their sides by the tissues. In the eruption of a tooth we do get pressure upon the arteries by



the tooth in its efforts to escape; the action of the heart drives the blood, the abnormal action, and we get heat and pain. I have many times placed my finger on the gums of a child thus affected and could feel the pulsation of the artery.

Now, I said that in inflammation removal of the cause is the first step in the progressive treatment of inflammatory conditions and, gentlemen, I know of no exception to the rule. In this case we have two causes, the tooth underneath the gum—the predisposing element—the tissue or the gum, through which it is trying to pass—the exciting cause. Of course, we do not care to remove the tooth, therefore we remove the exciting cause, by making a crucial incision through the affected area. The eruption of the tooth then takes place and the child is relieved. This is the method we all use, I dare say, if, when an adult suffering from the pain associated with the eruption of a third molar, comes to us, and if we apply this treatment to the adult, and do not treat the child in the same manner, when we know that the physical capacity of the adult for enduring pain is greater, and when the condition of inflammation are in both cases alike, we are either inconsistent in our treatment, or we do not understand the treatment of the pathological disturbance with which we are dealing.

Another trouble which presents for treatment, and which is, I regret to say, in many cases the result of poor treatment, is often characteristic of the mal-practitioner. It is the treatment applied to abscessed teeth, where extraction has been delayed several days, after it has been determined that extraction is necessary.

I have heard men say that the extraction of an abscessed tooth, during that period when the face is swollen is a very dangerous procedure, and I dare say that it is not an uncommon practice even in this profession to advise postponement of the extraction until the tissue resumes a normal condition, or the swelling "goes down." I have never, however, been able to get a satisfactory explanation as to why the extraction should be delayed. This is inflammation again, and, as always, the removal of the cause should be the first step in its treatment. The pathological changes which have taken place in the tooth or surrounding tissues cause it to be a foreign body, and the system tries to expel it. The anatomical conditions which are associated with its position, however, prevent this from taking place, therefore, the tooth acts as an irritant. All the other stages of inflammation follow this step and we get destruction of the tissues. I will show you a case on the screen later where the destructive process involved the malar and maxillary bones, parts of which I removed to bring about a cure.

There is no more reason why an abscessed tooth should be retained in the jaw simply because the face is swollen, than there would be to allow a splinter of wood to remain in the hand, a piece of glass in the foot, or a piece of steel in the eye, or for a gangrenous appendix to be left undisturbed until the inflammatory symptoms had subsided before attempting to remove it, since the forms of pathology are identical.

The fact that some cases of tooth extraction result in the death of the individual does not mean that the extraction of the tooth was the cause; such misadventure is usually due to the negligence of the operator in overlooking the very important steps of mouth sterilization before and after extraction. I base this statement upon the clinical fact that most, if not all, deaths following tooth extraction are due to septic pneumonia, or oral sepsis.

Many times patients present suffering from **Oral Ulcers.** ulcers of the oral cavity, and it is very important

that we should be able to differentiate between the several kinds, hence, it is perhaps of sufficient interest to describe some of the classes which come under our observation and treatment. These ulcerations present on different parts of the oral cavity, such as secondary syphilitic ulcerations, or mucous patches; diphtheritic gangrene on the palate; scorbutic ulcerations and canker on the gums; carbuncle only on the lip; cancer on the lip, tongue, or inner side of the cheek, etc.

We will first consider noma and mercurial **Noma and Mercurial Stomatitis.** stomatitis. These diseases resemble each other greatly, so I will describe their differences. Noma

appears only in children and then after the child has been affected with some severe disease, which has greatly lessened the vital resistance of the system, such as cholera, smallpox, scarlatina, typhoid, diphtheria, etc. It always manifests itself suddenly during convalescence; by a swollen cheek, pale, waxy, shiny surface. On the inner side of the cheek is a small gangrene ulcer. On the outer surface directly opposite this ulcer is an infiltrated hard spot. The breaking down of the tissues takes place on the inner surface of the cheek first. That is, the small gangrene ulcer keeps enlarging until it involves the whole inside of the cheek, gums, and in some cases the alveolar process. Following or in conjunction with this destruction on the inside of the mouth the tissues of the cheek begin to break, extending from the eye to the lip, and often making a hole of sufficient size to enable one to see the entire interior of the oral cavity. This disease always terminates by death of the individual, and the only treatment that can be applied is to keep the wound as clean as possible, and prescribe tonics. It is thought by some to be contagious, so it is important as dentists to be able to recognize this



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in its first stages, advise isolation of the affected person, and perhaps save the lives of others.

Mercurial stomatitis is recognized by the absence of an antecedent severe disease, by a knowledge that mercury has been taken and especially that the skin does not break, as in noma it will break within two or three days. Mercurial stomatitis is a slow progressive disease and only occasionally terminates fatally, while noma is accompanied always by delirium, swelling of the feet, profuse diarrhoea, and ends in death.

Scorbutic affections and certain forms of sto-

Scorbutic Affections. matitis on account of their resemblance are also liable to confuse us, since they both are characterized by a softening and painful swelling of the tissues which always begins in the gums, affecting these tissues until loosening of the teeth occurs. The whole course of the disease is associated with a very foul odor.

In scurvy we get a swelling of the gum tissue

Scurvy. which sometimes covers the teeth entirely. The gums are dark bluish hue, and bleed on the slightest pressure. Scurvy manifests itself in other parts of the body also.

Stomatitis is a local condition which is mani-

Stomatitis. fested by a similar swelling, but in this the gums are reddened rather than blue, and is marked by a yellowish edge which ulcerates and exposes the roots of the teeth. This yellowish edge can also be seen on the cheeks of the upper and lower jaw, corresponding to the impressions made by the pressure of the teeth upon the sides of the cheek, and the tongue is coated. In such cases I prescribe potassium chlorate for washing the mouth every two hours, and we generally see the disease disappear within two or three days, and in nearly all cases relief is experienced in three or four hours.

In the mouths of women, we find a small ulcer with sharp edges and a yellowish base, extremely sensitive to the touch. They resemble somewhat the syphilitic ulcer, and among the patients, in chewing, talking or in fact any movement of the muscles of the tongue, or cheek, will cause much discomfort. These little ulcers are surrounded by a bright red border. They can be relieved by mouth washes, and the application of a one per cent solution of silver nitrate, but will disappear in the mouths of women during their menstrual period, and questioning the patient regarding this will aid materially in arriving at a correct diagnosis.

In infants during the period of dentition we may find ulcers at the tip of the tongue, or under it, and when we see them, they are usually infected, and present a lardy, waxy base, with infiltrated edges. The healing process in these cases is very slow. I prescribe potassium chlor-

ate, saturated solution, applied with a sterilized swab to these ulcers twice daily. Although they resemble syphilitic ulcers they are really the result of infection from something introduced into the mouth during the painful period of dentition. When we consider how indiscreet parents are in the care of the mouths of their children during this period when the gums are so highly inflamed, it seems remarkable that all the poorer children are not thus affected. I have seen mothers introduce unclean fingers, pencils, and even button-hooks into the mouths for the purpose of relieving the suffering of a child, by rubbing the surfaces through which the teeth were trying to emerge.

Syphilis. Syphilis is a pathological condition which does not spare any time of life, any age, or any locality; indeed, it may be regarded as one of the most important pathological forms with which we have to deal. Its importance is only equaled by its dangers; dangers to ourselves, as well as to the patients whom we treat. While it is not a very difficult disease to diagnosticate when other conditions are equal, just the fact of the conditions not being so, often prevents us from coming to the right conclusion.

To diagnosticate correctly this disease is of very great importance, and in many cases it is almost impossible to do so. The patients, strange as it may seem, deliberately mis-state their true history, and their true physical condition, and many times by the apparent sincerity of manner with which they reply untruthfully to one's questions, will misguide one in making the diagnosis, prevent themselves from being treated properly, and in one or two instances I have known of innocent persons being made to suffer by the disease being transmitted to them, not in the way which might be called the usual way, but through drinking cups, and wash basins.

I remember one case where a man came to the hospital for treatment. Syphilis was suspected. He was put through a course of questioning which started by impressing or trying to impress upon his mind the importance of answering truthfully. He was apparently an intelligent man, and finally was asked about the rash. He replied that he never had been affected by a rash, nor was he at the present time, and his body was perfectly clean. He was told to go to another room and undress. He did so, and his body was covered with the syphilitic rash.

In consideration of this, which is only one of the many such cases, I think that we are justified in the interest of the affected individual, our other patients, and ourselves, to regard all conditions which resemble syphilis, as syphilis, until they are proven otherwise.

To cover the subject as it should be, would require more time than



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your committee could allow me, therefore I will simply confine myself to the principal conditions which present in the oral cavity.

First, we will consider the primary sore, "the **Chancre.**" This sore generally appears at the point of contact, more often in other parts of the body, than in the mouth, but its appearance here is of sufficient frequency to receive our consideration. It may appear on the lip, tongue, tonsils, and pillars of the fauces, and manifests on the lip as a small hard swelling about the size of a ten cent piece. Its free surface is generally covered by a small amount of watery secretion. The tissue surrounding the chancre is generally much swollen and the lymphatic glands beneath the inferior maxillary are enlarged. When the chancre appears in the median line, the glands on both sides become so hard, swollen and indurated that they interfere with the functioning. Without treatment a chancre will disappear in from five to nine weeks. This last statement will enable us to differentiate it from the cancer. Cancer will increase and much destruction of the tissues follows, while chancre confines itself to a limited area, having hardly any extension. The secondary manifestation of syphilis will also aid materially in arriving at a definite conclusion.

Under the following treatment the primary sore will disappear within ten days: Protoiodide of mercury, $\frac{1}{4}$ gr. pill, 3, 1st day; 4, 2d day; 5, 3d day; 6, 4th day, and so on. If the chancre disappears we know, regardless of what the patient says, that he is affected with syphilis, and it is then our duty to refer the patient to a physician for the long period of constitutional treatment which is necessary for a cure.

Gumma. A gumma is another syphilitic condition which may be taken for cancer, or chancre. I have described the symptoms of cancer, and I will say that gumma may be distinguished from chancre; first, by its late appearance, seldom appearing earlier than four years after the infection, more often seven, eight, or ten years, and sometimes fifteen and twenty years after. I had the good fortune to see one after twelve years, where the gumma was mistaken for something else, and neglected until the whole lower jaw, from the symphysis to the angle was affected by syphilitic necrosis. As you have already concluded from my last statement, the history is perhaps one of the most important steps to be considered. Sometimes it is very hard to get this, so I will describe the character of the gumma. It is unusually bright red, very painful and shows a tendency to early ulceration. Ulceration and sloughing is not present in chancre. Large doses of iodide of

potassium will cause the disappearance of a gumma, but it has no effect upon chancre.

Mucous Patches. The mucous patch is perhaps the sore to which we should give the most attention, since it is the one most commonly met by the members of our profession, and also a condition that may be easily mistaken for other simple pathological troubles. The transmission of this disease in many instances is due to the ignorance, or carelessness of the operator.

Mucous patches appear on the mucous membrane of the oral cavity, in from six to eight weeks, although I have seen one case where the appearance was delayed until the eleventh week. In most of the cases which I have observed these patches were present on the hard and soft palates. They appear as grayish irregular patches varying in size. Their presence would lead one to believe that nitrate of silver had been used over this surface—that is, the appearance suggests that a caustic pencil had been used rather than cotton, as the whole surface does not seem to have been burned, except in definite areas.

The cutaneous eruption on other parts of the body known as "rash," always accompanies the patches; swelling of the submaxillary and sub-lingual glands usually precede this condition. By inquiring as to these symptoms, a correct diagnosis may be formed. Mucous patches are very painful, and easily irritated. Here smoking should be discouraged, also drinking of irritating drinks, or highly seasoned foods. Nitrate of silver, 30 gr. to the ounce, saturated solution of potassium chlorate, borax, or alum are recommended as washes, but I have had some success in relieving the pain associated with this trouble by painting the surfaces with campho-phenique and orthoform.

Of course, this treatment is only palliative and constitutional treatment must be applied to effect a cure.

As you are all familiar with the dangers of transmission by instruments, linen, glasses, etc., I will not take your time with this, but will simply point out a danger which is not always mentioned in the text books; the danger of being infected by the patient's coughing into one's face, during the examination of the oral cavity, at a time when the mucous patches are present. The epithelium lining of the oral cavity is generally in such a state that it can be easily thrown out during a spell of coughing.

Facial Neuralgia. Before closing this paper I wish to say a few words about a disturbance which it is reasonable to suppose comes under the care of all of us for diagnosis and treatment. It is the affection of the fifth nerve, known as tic doloureux, or trifacial, or trigeminal neuralgia.



It may not be amiss here to remind you of a few facts concerning the anatomy and physiology of the fifth cranial nerve, or, as it is sometimes called, the trigeminus. It arises by two roots, a motor and sensory, the latter very much the larger. At the apex of the petrous portion of the temporal bone the fibres of the sensory root form a semilunar ganglion, the Gasserian ganglion. From the anterior border of this structure are given off three branches—the ophthalmic, the superior maxillary, and inferior maxillary; the first two divisions are pure sensory roots, but the third receives fibres also from the motor root. The motor root supplies the muscles of mastication, and the sensory root the skin of the face, the mucous membrane of the mouth and nasal cavity, the conjunctiva and cornea, and anterior part of the tongue with gustatory fibres.

When we consider the extensive area which this nerve covers, it is very easily understood how in many cases the teeth are the exciting cause of the peripheral disturbance of the nerve which manifests itself by intense intermittent pain, commonly known as neuralgia. In other cases the cause is in the nerve trunk, and in many cases it is in the Gasserian ganglion. If the tooth, or teeth, be the cause, then, its treatment belongs to us; but if the cause be in the ganglion, the treatment then belongs to the neurologist and not the general practitioner, and we are bound in the interest of justice to refer patients who come to us to the persons whom we know will give them the best treatment attainable, and the one best qualified to do this is the person who has made a special study of the subject, and that is the neurologist.

My principal motive in speaking on the subject of neuralgia is to discourage the wholesale and indiscriminate extraction of sound teeth for the relief of neuralgia, simply because the affected individual points to a certain tooth, and tells us to remove it because it aches, or because some equally careless physician sends a patient to our office for the same purpose.

If the tooth be the cause, as in many cases, we should extract or treat it, but we should always be the judge, and if we find that the trouble is not in the tooth we should advise the patient to invite a neurologist to consult with us to determine the cause of the trouble.

By working along these lines, we will reflect credit upon ourselves and our profession, as well as prove to our patient the deep interest we have in his condition. I have seen many cases during the past year where teeth have been extracted, the number ranging from one tooth to a whole set, for the relief of this trouble, when the affection was not in the teeth, but in the ganglion. Of course, the individual after such treatment suffered from neuralgia, as well as the loss of the teeth. While

speaking to a neurologist recently, I was told by him that this practice of tooth extraction is more general than is supposed.

If we sent a patient to a surgeon to have a finger amputated, he would refuse to amputate, unless his judgment suggested it. So then, upon these same grounds we should refuse to extract a tooth to cure neuralgia, unless the existing conditions assured us that the teeth were the existing cause. In many instances neuralgia is of malarial origin, and we are able to determine this by the periodicity with which the pain occurs. That is, it will occur at about the same time each day, and will last about the same length of time, varying in its intensity.

In those cases we prescribe doses of XX. gr. quinine, emptying the contents of the bowels by a dose of calomel, 1-10 gr. until 1 gr. has been taken. A preparation known as Warling's tincture in two drachm doses is considered by many authorities as superior to quinine for relieving patients affected by this form of pain.

Phenacetin, XV. gr. every two hours, antipyrin, XV. gr. every two hours, or sulfonal, every two hours are the drugs most commonly used for neuralgia pains. 1-100 gr. strychnine, or 2 grains of caffeine combined with these drugs will prevent any depressing action on the heart.

Aconitine is regarded as the best remedy. It is prepared in pills containing 1-500 of a grain. It is administered 1 pill every four hours combined with 1-50 of a grain of strychnine, gradually decreasing the four hours, one-half hour at a time, until the third day, when the patient will be taking 1 pill every two hours, then add 1-100 grain of strychnine. If strychnine does not agree with the patient, two grains of caffeine may be substituted.

In closing, I wish to say that I do not expect the dentist to treat all forms of neuralgia, but I do feel that we should know whether or not the teeth are the cause and, if in doubt, we should ask for consultation. If we follow these lines then there would be less criminal extraction of teeth.



The Philanthropic Care of the Teeth of the Poor.

By Dr. S. BLATNER, Albany, N. Y.

Read before the Third and Fourth District Dental Societies of the State of New York, October, 1905.

There is no royal road to learning, but the old path of unremitting labor, and while of late many wonderful discoveries have thrown great light upon hitherto obscure questions in medicine and one of its specialties—dentistry—thus seeming to clear up the sciences and relieve some of the labor required to attain them, these very discoveries have so enlarged the field of scientific inquiry as to increase rather than diminish the toil of acquiring the knowledge necessary to the intelligent practice of this profession.

In dentistry new branches of study are introduced. New standards of preparation and practice are demanded. A few years ago all the branches deemed necessary to be taught in a dental college, or essential to be learned, in order to qualify the student for the duties of the practitioner, were embodied in instruction of a very few teachers who were supposed to be thoroughly versed in all the lore of the profession. Less was expected of the ordinary practitioner than is today demanded, and the training, which would then have been regarded as adequate, would not now be thought respectable.

The great advances in dentistry and in general sciences within the last few decades have so extended the boundaries of dental knowledge, absolutely required by even the beginner in practice, that greater division of labor has been rendered necessary in the instruction and practice of the profession.

Men whose researches have been great and whose experiences have been almost without limit in the general field of dentistry, have found it impossible to follow the special branches to the extent explored by individuals who have pushed their investigation in special directions. Thus, one by one, innovations have been forced into the curriculum.

There have rarely, if ever, been so many brilliant advances made in any science, especially in etiology, pathology and treatment as have been made within the last twenty years in the knowledge of the teeth and the oral cavity. From being an obscure subject, disregarded and ill understood, it has, by the labors and researches of properly equipped men, been advanced to the rank of a new science, and, I might almost say, that a new profession, welcomed as a specialty of medicine and surgery, has been founded by the labors and discoveries of properly trained students.

As science advances the field becomes so large that subdivisions become necessary, and, as in the science of medicine, the practitioner comes in to explain the discoveries which belong to his special department, whether medical or surgical—their histology, etiology, pathology, diagnosis, prognosis and termination. So does the dental surgeon of the present day find it necessary to subdivide and classify his work.

These facts and this train of thought gradually lead up the manner and method of how to best utilize this material, both for the benefit of the profession and the greatest good to the greatest numbers. By means of hospitals and dispensaries, where many seek advice and relief, a great field is afforded not only for the relief of the needy, but also as a great medium for the proper instruction of the masses—in the laws of hygiene and the proper preservation of those organs necessary for the enjoyment and prolongation of life. In the larger cities where are located dental colleges and their infirmaries, the care of the teeth of the poor is easily met. But in the various towns and cities where we do not find these institutions the care of the teeth of the poor present a problem which is perplexing.

Just two years ago, at the joint meeting of the **Physicians Ignorant of Dental Diseases.** Third and Fourth District Dental Societies, this matter was discussed, but owing to lack of time due consideration was not given to it. Therefore, I felt that, being especially interested in this line of work, a few suggestions might not be inopportune. The first problem to be considered is the proper dental education of those who come directly in contact with the poor. I refer to the inability of the majority of physicians and practically all nurses to recognize dental disorders. While scientific in every particular and in every smallest detail of their work, while absolutely thorough in making body examinations, both macroscopically and microscopically, testing and counting corpuscles of the blood, making most careful analyses and searching for the presence of bacteria and the thousand and one other means at their disposal for detecting any possible defect in the human economy, they often fail to recognize, if they *do* examine the oral cavity, the conditions present and the bearing and relations they have to the various organs and processes of the body. If these conditions were recognized and patients sent to the dentist, what a vast deal of discomfort could be alleviated and what great good could be done toward saving hundreds of teeth for these poor people. How are physicians and nurses to be educated to these facts? A dentist worthy of the name should be added to the corps of lecturers of the medical colleges, to deliver during the session a sufficient number of lectures to cover the subject of dentistry, as much as would be of practical value



ITEMS OF INTEREST

to the student in his profession. At the same time a series of clinics should be held illustrating practically the conditions lectured upon, thereby giving the student every means of learning to recognize the various dental disorders. A course of both practical and didactic instruction should also be given before the nurses in order that they, too, might recognize and be able to treat such dental disorders as might come under their observation. Assuming at this point that we have the nurse and physicians educated to the proper dental knowledge and combine this with the common sense that some of the poor people may possess in regard to their mouths and teeth, then we, as dentists, must be prepared to receive and treat those that are sent to us or who come of their own free will.

The question of importance for us to solve is,
Dental Dispensary. How are we, as dentists, to be prepared to handle these cases? The objection has been justly raised

that this class of work cannot be done during office hours, as it interferes with the current and regular work and is objectionable to the practitioner's clientele. An occasional patient of this kind can be received, but this news soon spreads among this class and the regular office work would soon be crowded out. This has been my personal experience, and this fact has led to the establishment of the Dental Department of the Albany Free Dispensary.

I find that these patients very willingly apply for treatment at the dispensary at the regular established hours, and from the systems adopted—that is, a proper supervision of the worthiness of those who apply—very little work is done for the unworthy. The nurses are required to investigate each case, and upon a history card these facts are stated in detail. A proper supervision of this kind prevents the indiscriminate loss of teeth, which, in our experience, has been a lamentable fact. While the facilities afforded by this dispensary are ample for ordinary dental work, they do not accomplish what might be effected under proper facilities afforded to a corps of workers. This fact led to the establishment of a plan which I shall now recommend to you. I would recommend that room be obtained either in the hospital, medical college or dispensary or any suitable place, and to be equipped with several chairs and necessary appliances for the conditions that may be presented for treatment. The work would be under the supervision of ethical dentists and the demand upon their time would be very limited. The charge for work would vary from free services to small fees, according to a schedule that would be adopted by a governing board. For example, all operations would be free that required only time. Plastic fillings and extractions would be free, and such other charges would be made as the work warranted. The worthiness of applicants would be investigated upon a similar plan as adopted at the hospital and dispensary.

To meet the expenses of such an institution, application could be made to the city as in the case of hospitals and dispensaries. When this idea was originally presented two years ago I had little hope that the plan suggested herein would be brought into active operation so soon. In our city the Albany Guild took up an active consideration of this plan, and the result has been the permanent establishment of a dental department, fully equipped to perform the usual dental operations that are necessary for the proper preservation of the teeth. The work is under the supervision of four ethical dentists who report for duty twice a month. By this means eight clinics are held each month and each clinic furnishes a good quota of patients. The work is progressing very satisfactory and we are fully delighted with the results to date.

Some such plan as I have recommended in this paper might commend itself to the favorable notice of the profession.

I earnestly hope that this agitation so auspiciously begun may terminate in a wholesome fruition.





With this issue we begin a new volume, and, offering it as a sample of what we have prepared for our readers for 1906, we tender to all the compliments of the season, and may you enjoy a happy New Year and a prosperous succession of the months to come.

Just at this moment we feel proud and happy—proud of the plans for the volume just begun and happy at the certainty of the consummation thereof. The planning has occupied almost an entire year, but the results promise tenfold to repay the energy and thought expended.

Dr. Hinman's article, which opens our pages, is but the introduction to a continuous series of papers which will deal with the whole field of gold inlays. These will be profusely and properly illustrated in the same style which has made Dr. Goslee's serial so popular. That Dr. Goslee has resumed his bridgework articles, we know will be hailed with delight. This gifted prosthodontist, after an unavoidable lapse, will now carry his subject to prompt completion.

One new department which we introduce will be entitled "Clinical



Demonstrations." No great dental meeting today is successful unless there be from ten to a hundred clinicians. As these clinics have never been systematically reported by any dental periodical, ITEMS OF INTEREST assumes the work, and hereafter will endeavor to give its readers a bird's-eye view of the clinics throughout the country. The most interesting, novel and useful demonstrations offered at all the State Dental Society meetings this summer are now being prepared for publication, and will make valuable and very practical reading.

Another new department begun with this issue is entitled "The Pessimist." The writer will make it his business to be a close observer and to comment on current events in a semi-facetious vein which, it is hoped, will please our readers. There is, however, a serious purpose in the department. All is not entirely ideal in—let us say "the management of dental affairs"—and sometimes dark places may be illuminated even by a penny tallow dip. Perhaps the quill of a goose in the hands of the "pessimist" may serve a good end.

This number is so rich in good things that there is scarcely room for an editorial. The editorial of last month, however, has brought us the compliment of rejoinders from the deans of important dental schools, and our Correspondence Department this time has the best letters ever printed therein. These should be carefully read by all interested in higher dental education. They are instructive, not alone in connection with the topic of which they treat, but, as a whole, conclusively prove that dental teaching is no longer a haphazard adventure, but the serious life-work of capable dental pedagogists. And yet the "product" of schools guided by such men, must be tested by Boards of Examiners. The query naturally arises, "Are the examiners as capable as the teachers?"

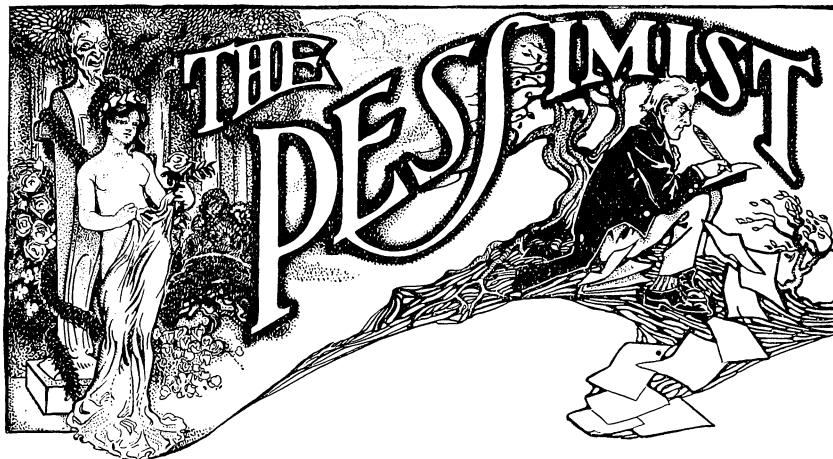
The present status of examining boards, and of dental laws, is discussed by Dr. Sweeney in a very thoughtful article in our department of Dental Laws and Licenses, which at least should be read by all State Board members. Space is offered to any of these for reply. Dr. Sweeney has guessed the real purpose of this department. We shall periodically publish, as heretofore, synopses of the legal requirements of the several States, and shall keep this matter up to date as State statutes



are amended. But here, also, is a forum for the free discussion of dento-legal jurisprudence and kindred topics.

Finally, we may make the announcement that we shall shortly begin a series of papers which will cover the entire field of ceramic art in its relation to dentistry. The illustrations, it is needless to say, will be in our best style. In short, we can safely predict that *ITEMS OF INTEREST* for 1906 will be the very best volume we have yet produced.





I HAVE given up dentistry. Of course, I am still in practice, because, having
* been a dentist only twenty-five years or so, I have saved only half a
* million, and the annual interest on that sum would not support my annual
* habits. Nevertheless, as I said before, I have given up dentistry. I no
* longer have any illusions. On this point, a Friend of mine disagrees
* with me—but then he disagrees with me about most everything, and that
* only proves that he is really my friend. Just imagine a man that agreed
* with you always! Just fancy! He couldn't be your friend! He just
* couldn't, and that's all there is about it. *



MY FRIEND says I am wrong to give up my illusions—ideals, he calls them;
* and because I can't discriminate between an illusion and an ideal he calls
* me a pessimist. He says all men must have ideals—even dentists.—He
* says an ideal is like a soul. One must believe in it whether it exists
* or not. Now, believing in things that do not exist does not appeal to me.
* Apparently it does appeal to my Friend, and for that I call him an optim-
* ist, and I think we are quits on that score. *



MY FRIEND says he sees a great deal in dentistry, both in its past and its
* future. He says he is clear-sighted; that he has visions of a greater den-
* tistry still to come. This makes me smile, because all optimists are like
* that—clear-sighted I mean, which is only another phrase for clairvoyant.
* It's terrible to analyze things. But let us analyze this just for fun.
* Clairvoyants see things; mostly they see things that do not exist, and at
* the time they usually are in a trance, and folks who have visions
* are surely visionary, aren't they? I would tell this to my Friend only
* I am afraid he might resent it; he is so sensitive. Of course, he sees no
* harm in calling me names—pessimist, for example. But that's different.
* I'm not sensitive. *



ITEMS OF INTEREST

BUT I ought to tell you why I have given up dentistry. The truth is I did ♦ have ideals (or illusions) once. All of us are young at some time, and ♦ the young are generally unsophisticated. For instance, in those days I ♦ had the notion that dentistry was just—dentistry. But I have learned that ♦ I was mistaken. Dentistry is not so simple as that. Dentistry is complex, ♦ or I might say quadruplex. Dentistry is made up of four parts—Opera- ♦ tive dentistry, prosthodontia, orthodontia and—politics. ♦ ♦

* * *

THUS POLITICS—and, of course, politicians—are fourth class. There is a ♦ great deal in classification, when you come to think it over. It helps one ♦ to arrive at the true values of things—and sometimes of men. It is ♦ usually wise to weigh things on the public scales. A fish weighs a great ♦ deal more on the fisherman's scales in his own boat than when he offers ♦ it for sale in the open market. It weighs more still if he just tells you ♦ about it, without actually showing you the fish—and the one he nearly ♦ caught was bigger yet. It is the same with dental politicians. They ♦ are a whole lot more important in their own estimation than they ever ♦ will be in the judgment of posterity; and the things they meant to do ♦ are usually their best performances. ♦ ♦

* * *

IT WILL be amusing to some folks to learn that I am writing about politics—♦ because I am not a politician—indeed I am not even politic. Were I ♦ politic I should not be writing this sort of stuff, for well I comprehend ♦ that I am blasting all hope of holding office. Of course, I could lift ♦ up my megaphone and cry out: "I am not an office-seeker. I believe ♦ that the office should seek the man," and so forth; but that sort of state-♦ ment lacks originality. It sounds well, of course, just for a minute or ♦ so, but the fellows that make such announcements usually have a mental ♦ reservation that they are just about the parties that the offices ought to ♦ seek, and in the official game of hide and seek they are apt to hide in cup-♦ boards that have glass doors. A good many of us are like that. Really! ♦ We are not looking for office. But if a friend should say, "I am going ♦ to nominate you for president," we likely answer: "Oh, shucks! I'm ♦ not good enough. Come and have a drink." And after the high balls ♦ have warmed the cockles of both hearts and we are walking out, arm in ♦ arm, we whisper: "Do you think I'd have any chance? Really?" Later, ♦ when we get a telegram which reads "Elected," we open our vest, swell ♦ up a bit, give the boy a dollar and tell him he's the right sort. Oh, dear, ♦ yes! We are all very human. ♦ ♦

* * *

BUT AS NONE of my friends has mentioned the word "nomination" to me, ♦ I am free to admit that I am not in politics, not in with the politicians, ♦ and consequently not fourth class. Thus I can afford to be a pessimist, ♦ to give up my illusions, and I am going to be very frank about it. I ♦ am going to tell you what my greatest illusion once was, and why I ♦ have given it up, and why I blame it all on the politicians. ♦ ♦



ITEMS OF INTEREST

THERE WAS a time, I hate to say how long ago—when I thought all dentists
were bound together by brotherly love, working to one end; yoked
together in the plow of progress, as it were. That the minute a man
learned a new thing, he just yearned to tell it to his brother, and let
the other fellow share his luck. Now I am bound to admit there are a
few left, like that, but the man tree that bears that sort of fruit is
languishing, the dental garden is getting so choked up with political
weeds.

* * *

IF YOU analyze the above you will be not surprised that once I had the
idea (ideal is the offshoot of idea)—the idea, that to be president, a man
must have done something; something for the elevation of dentistry;
for the advancement of dental science; for the betterment of his fellow
practitioners; for the improvement of practice. I supposed that
after work of that sort, as a reward, his fellows were glad to set him up
in the high place.

* * *

AFTER A TIME, when my eyes got accustomed to the refulgence of some of
our presidents, so that I could look at them without blinking, I began to
gaze about, and it surprised me to note that these gods looked so much
like other bipeds. Of course I thought I must be mistaken.

* * *

SO I CONCLUDED to search their records. Then a curious thing trans-
pired. These dental demi-gods, these political presidents, have no
records!

* * *

ONCE OR TWICE I stumbled on a president whose name stood for real
science. But these elections must have occurred in off years when the
political president vine was not in bloom. I guess the politicians give
us a real scientist, once in a while, for the same occult reason that
prompts the restaurant man to drop an oyster into an oyster stew; it
keeps the customer guessing.

* * *

BUT DON'T have any illusions about this. There is no reward of merit about
these accidents. No election to high places won by work with the mid-
night lamp. There is nothing like that in dentistry, just at present.
When we are vouchsafed a real president, he is only the icing on the
cake, and the other sort of fellows are all under the beautiful snow white
cover. Your politician is always on the inside—where the plums are.
Your occasional, scientific president is the wooden image put up for
plain people to bow down before, and he is wooden enough. He is a
sort of automaton, without knowing it. There are strings, and men
that pull them, for what is a politician without his pull? But the dear
man is so set on science, that he cannot see things with the naked eye,
however shamelessly naked they may be. He makes all examinations
with a microscope. He knows the baptismal names of all bacteria save
one—bacillus politicalis. That is a germ he has not as yet cultivated.



ITEMS OF INTEREST

THIS WISE man can explain how pyogenes aureus is connected with pus, ♫ but of how the political germ is eating away the vitals of true fraternal ♫ dentistry, he knows nothing. Bacillus politicallis has never crossed the ♫ field of his microscope. Yet this bacterium is easily discoverable, even ♫ though it loves the secret session, and the devious way. Who will in- ♫ vestigate it—cultivate it—test it—and find for us its antitoxin? ♫ ♫



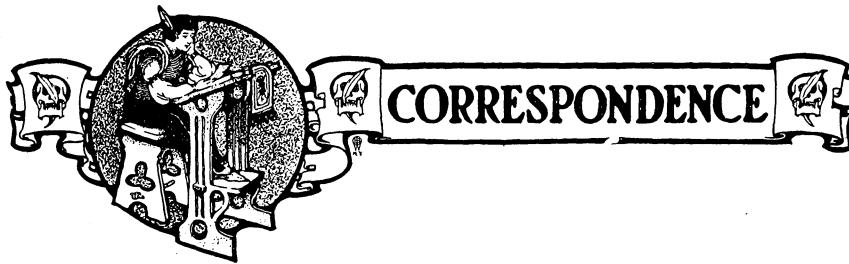
I SEE ONE society is offering cash payment for original research work. ♫ Perhaps I may have a try for it. I've always longed to stand before an ♫ admiring throng and throw pictures on a screen, and with a long pointer, ♫ point out things. ♫ ♫



THERE ARE some secrets I could tell right now. Sometimes these fellows ♫ go into a closet to hatch a scheme, and forget to shut the door. Some- ♫ times I happen to be where I can peek in. Sometimes I see them tying ♫ the strings on the wooden dolls. I could tell some of these things; the ♫ name of the next doll for example, and who tied the strings on him. ♫ Maybe I will tell—some day. I am thinking it over. Just now, it might ♫ not be politic—or politics. Funny how I get those words mixed. But ♫ what can you expect from ♫ ♫

The Pessimist.





The Count System in Dentistry.

Letter from the Dean of the Dental Department of the University of Pennsylvania.

Editor ITEMS OF INTEREST:

Dear Dr.:—I have read your December editorial with much interest. The problem with which you deal therein is an old one in education and one which has been variously solved. It is one upon which as great a diversity of opinion can be obtained, indeed has been obtained, as upon that somewhat older one "is marriage a failure?"

As I understand your proposition it is to grant advanced grade in course, or grant a diploma of graduation as soon as the candidate can demonstrate by the result of examination that he has attained the requisite knowledge or skill, as the case may be, to pass the examination test; in short to disregard the time element and base advancement in grade or fitness for final graduation solely upon attainment, by which you appear to believe that certain advantages would be gained and equities would be subserved as follows:

The brightest man in college would get his diploma when he had earned it and not have to wait until the stupidest man in his class had also earned his. The practitioner of many years standing would be enabled at once to pass the examination in practice and only have to prepare himself to pass in "theory," which he could do in a much shorter time if relieved of the necessity of doing all the required practical work.

I admit the general justice of the proposition that a man in college should be graduated on his attainment regardless of the time required to secure it, but there are practical difficulties in the way of effectively carrying out such a plan under existing circumstances.

The Test of Examination. The first is the inherent insufficiency of the examination as a test of a man's attainment. You will doubtless at once suggest that the same objection applies to the examination test whether given at the end of a course or at any earlier period. Apparently so, but as a matter



of fact a college faculty that has had constant supervision of a student's progress throughout the entire curriculum can apply the examination test much more intelligently and with less chance of error in assaying a student's attainment than the same faculty could without having had the same opportunity for observing the steps by which the student had reached the examination stage.

Again, the successful passing of a final examination is not the only basis upon which the fitness for graduation, under our present system, is adjudged. Back of and as preparation for the final examination is three academic years of drill, training, discipline in logical thinking and manipulative skill. The total result obtainable in these three years of preparation measured in terms of mental culture and manipulative training represent the minimum basis upon which, under present standards, the degree of Doctor of Dental Surgery is obtainable. The final examination is a test and in the nature of an inquiry addressed to the student as to whether he has acquired all that he should have acquired during his period of college preparation. In my opinion, based upon some practical experience in the matter of dental education, a final examination or indeed any examination successfully passed by a candidate is valuable *per se* as evidence only that the candidate was at the time of the examination able to answer a certain number of questions and in the absence of any other collateral evidence is practically worthless as a measure of a man's fitness to practice dentistry. I know of a case in point where a candidate grossly incompetent has been able by a memory cramming process to successfully pass a licensing examination by a state board. He answered the required number of questions and he passed, but he knows less of dentistry than your office boy. The board is not to blame; they did their duty according to law, but the real fault is in the examination method and popular belief in the fallacy that it alone can be made a measure or standard by which fitness and competency to practice dentistry may be accurately tested.

You will see from the foregoing that I regard the D. D. S. degree not alone as evidence that its holder has passed examinations upon all the subjects that go to make up the recognized standard dental curriculum, but as evidence of the further and, to my mind, more important fact that he has had the scholastic and practical training during a three years' course in college in order to fit himself to take the degree examination. This, I think, is as it should be.

**Can Faculties
be Trusted?**

There is another and more potent reason why your proposition seems to me open to objection, viz., that in view of the strenuous competition both to get and to give the dental degree any relaxation of the

present time qualification would open the door for abuses which are now minimized—I mean by this, that if all college faculties were permitted to advance or graduate students at their discretion, then I fear the discretion would in too many instances be irregularly exercised and we would have a revival of the Delavan cosmopolitan business to an extent that would make the printing press and the dental colleges homologous enterprises. I appreciate the justice of your contention and your proposition appeals to me as fair, but for the foregoing reasons it seems to me to be inexpedient and under existing circumstances unsafe and impracticable. All of which drives me to the same conclusion regarding this matter as was expressed some years ago by a newspaper man with respect to the problem of the failure of marriage already referred to. He said, "Well, it may be a failure but under present circumstances it is about the best arrangement we have."

Very truly yours,

EDWARD C. KIRK,

Dean of University of Pennsylvania Dentist Department.

Letter from the Dean of Indiana Dental College.

Editor ITEMS OF INTEREST:

Dear Dr.:—Your editorial in December issue has been read. Is Columbia University the first to institute that method? I was under the impression that it had been in operation for several years in certain American colleges and that it had been used for many years abroad. I may be mistaken about this, but I am sure there was much agitation in educational circles along this line some three or four years ago.

In regard to your editorial. There can be no question but that, theoretically, your logic is irrefutable. When the required skill and learning have been acquired, the student should be given his degree. That is axiomatic in its unassailability from the standpoint of justice and fairness, and it is not until the practicability of the student's acquiring that information and skill in less time than the course now demands, is touched upon, that any fair-minded person can raise an objection to it.

**Difference
of
College Methods.** In colleges of liberal arts, where the student is privileged, within certain limits, to elect his subjects, all of which lead toward a degree, the school year is divided into two, or more often, three semesters and, the professors devoting all their time to teaching, in many of these subjects new classes enter on the study with the beginning of each semester. For illustration, lectures on a course in



logic, or ancient history, or what-not may begin with the opening of the first semester in September and those same lectures be repeated in the second semester, thus enabling a student who finds the time to do so, to begin his course at the commencement of the second semester. This repetition of courses in the college year makes it possible for a student to take up new work as soon as he has laid down some of the old.

That method of presenting subjects is impossible in our dental colleges until we have faculties made up entirely of teachers devoting all their time to the work. The expense of this is too great for most of our colleges to undertake. Give us liberal endowments so that competent men may be adequately compensated for devoting all their time to educational work and that objection will be eliminated.

**Sequential
Teaching
Necessary.** The above is so closely related to another objection occurring to me, that it is difficult to view them separately. I refer to the inevitable sequentiality of a course in dentistry. To illustrate. Before the

student can pursue physiology to the best advantage, he should have completed histology and before entering on pathology he should have completed physiology. The successful pursuit of the one study depends on a previous knowledge of the other. And the illustration may be carried further. Therapeutics is based on a knowledge of physiology. Bacteriology should be preceded by anatomy and physiology. In the college I have the honor to represent, our courses in operative and prosthetic dentistry are carefully graded with the idea of leading the student from one part of the subject to others in an orderly and systematic manner. A comprehensive knowledge of any part of the subject can only be had after a knowledge has been obtained of all that precedes that part.

Now granting for the sake of argument, that certain students are capable of proceeding much faster than others, and I grant that fully, for I know it to be true, I am of the opinion that even the brightest of them would not be able to do satisfactory work under our present methods of teaching, or, in other words, we are now straight back to my first objection. Again to illustrate. Suppose a freshman, under our present graded system where the study of anatomy begins with a definition of the term and is progressive through the first and second years, concludes to double on freshmen and junior anatomy. Can you not see the absurdity of the situation? Without the slightest knowledge of the subject he attempts junior work that really requires a year's previous training to properly understand. Now suppose we had a college where the first semester's work in anatomy was duplicated in the second semester by another class and where the second semester's work was also duplicated



in the first semester. For a very bright student to attempt both first and second semester work in the first semester would not be so great a task and he would have a fair opportunity to keep up the work in both classes.

Now, my dear Mr. Editor, this has been hastily written and when it is read it may be not only written but rotten; but I am sure there is a thought concealed about it somewhere. I know of other arguments that might be advanced but have neither the time to detail them nor the heart to inflict them on you. The necessary sequentiality of a dental course as compared with a course leading to the Bachelor of Arts or of Science degree, and the fact that each session's work is presented but once in the fiscal year, leads me to conclude that doubling up on the studies cannot be attended by satisfactory results. Q. E. D.

GEORGE EDWIN HUNT,
Dean Indiana Dental College, Indianapolis, Ind.

Letter from the Cincinnati Dental College.

Editor ITEMS OF INTEREST:

Dear Dr.:—Your editorial entitled "A Peck Measure for a Peck," appearing in the December number of your worthy journal has struck a sympathetic bell in my heart. It is not a new bell, but a new ring of an old bell that has long been sounding the tocsin of truth to my inner consciousness, not oblivious to the right and true tenet of dental education, but possessed of a fearlessness that I might be called something worse than a "stubborn heretic" should I expose my thoughts to public view.

I have long since comprehended the utter impossibility of justice by the method employed by dental colleges in grading students and *diploma-fying* them. As the head of a "great," even if small dental college, I have often blushed at my execution of justice in grading students who applied for admission for advanced standing, prostituting my position as Dean of the school and as an honorable man just because it was the rule. The rule why? Only because the colleges banded themselves together, and they must have a code of rules for the purpose of keeping each other honest. So for many years back the dental colleges have been, and are today, throttling blind justice and allowing distrustfulness of each other to inflict hardships and unmerited punishment upon talent, thrift and industry. The majority of us believe that the good live and the bad must die. If this precept prevails at all, it follows as "the night the day" that the present system of grading in dental schools must die because it is based upon distrustfulness, a quality that has existence only in the minds of corrupt men. Caution should exist as it is one of the requisites to the

preservation of life. As we all recognize the wisdom of making laws, so also do we acquiesce in the appointment of police to curb and arrest law-breakers: these laws and officers, however, do not harass the good, impede progress nor inflict penalties upon progressive citizenship. This is just what our present grading laws in dental schools do. A practitioner of fifteen or twenty years' experience who could repeat word for word all the recognized text books of dentistry and allied sciences, with perfection in dental skill and manipulation, would be graded as nothing else than a freshman in any dental school of this free country; and should some Dean, burning with a sense of justice, do otherwise, the narrow gate which leads to the broad meadow of public practice would be barred and sealed by that august body, the Dental Board of Examiners, whose mission seems to be not only inquiry into the ability of dental graduates, but of the degree of honesty of the dental college faculty, that has placed its seal of approval upon the student after patient teaching and tireless investigation as to his acquired ability. Yes, Mr. Editor, you are right and this right like all other right will prevail. Our present grading, time and classification system is all wrong. Our students must not be sentenced to do time, but work, and when that work has been done they should not receive a stunning blow with a policeman's billy because they did not do the work in a dental college nor because they had the talent, intellect or industry not to have spent three or four years in accomplishing it. In business, men receive the emoluments financially and intellectually of their thrift and industry. Professional students have the same rights to convert their time and brain into cash. A change of "conventions" and "filling of the peck measure" is not so difficult, but I believe not one school but all the dental schools should co-operate in the consummation of such a condition.

**National
Commission
Proposed.**

A general and unbiased commission for the entire United States might be established. This commission should pass on the degree of knowledge of all dental students and those contemplating becoming such as attached to our dental colleges, and then let the student select the dental school in which he desires to continue his studies if unfinished or if already qualified, to receive his diploma. This commission could be selected by the State societies of the various States. Small changes in the State laws would conform them to this condition of affairs, State boards would no longer be necessary nor desirable and the diplomas of good schools would be sought, and would have a distinctive meaning of honor and credit to the holder instead of being an article of suspicion and distrust. Many of the best schools of the old world admit students to matriculation, and it is almost a matter of



indifference or of little consequence whether the student ever enters the college building: but when the examination or test comes the student must reproduce the knowledge that his school has been inculcating in order to get a diploma and the test is so exhaustive that no doubt remains at the end of it. I congratulate Columbia College on the progressive step which she has taken and I know that she has the means and the influence to maintain her position. Dental colleges will first have to enter into a struggle for independence and hammer off the shackles which they have helped to forge upon themselves for the past few years, by lending their aid and influence in passing foolish and impracticable dental laws in their false manifestation of interest in dental progress. The time is ripe now to strike and I hope that they will do it.

E. S. JUNKERMAN,
Dean of Cincinnati Dental College.

Letter from the Dean of the Milwaukee Dental College.

I am asked to express my opinion on the change adopted by Columbia University looking toward the abolishment of the class system as applied to dental education. The thoughts promulgated in the able editorial which appeared in *ITEMS OF INTEREST* for December have stimulated me to submit the following observations:

The first requirement for the general adoption of this plan of advancing students according to merit regardless of time is, that a school adopting this plan should be strong enough to wisely and justly administer such a dispensation in special cases, regardless of financial considerations. Unless such a condition of strength exists when based upon meritorious work done in the past, the cause of education it seems to me will not be advanced.

In Columbia University the element of strength referred to does exist; hence the conditions are favorable for a fair trying out of this new plan. We may speak of it as a new plan and yet the underlying principle which supplies the motive for the change is not new, and is evidently based upon the principle of common justice. In other words theoretically a student who satisfies the test applied by the faculty, and undisputedly comes up to the standard of requirements should be advanced, assuming of course that this is done under proper restrictions.

Now the question comes up—can the merit system of granting advanced standing to students in dentistry, without the limitations of time, be adopted by dental colleges in America without retarding the advancement of dental education? In considering this question fairly, it is neces-



sary to bear in mind that dental colleges depend upon the income derived from students' fees for meeting their current expenses. This is quite universally true with but few exceptions. Very few university dental schools, if any, are supported to any great extent from the University Endowment Fund. Therefore it naturally follows that the question of finance cannot be eliminated in this connection. How much of a factor this would be in maintaining a high standard of dental education in all cases would of course depend upon the honest administration of this policy by the individual schools.

I very much fear that the granting of advanced standing to students by dental schools, with no further restrictions than the judgment of the faculty, might at this time be open to criticism. I believe the time will come when unusual aptitude on the part of a student will be recognized by dental colleges in granting advanced standing. However, in my judgment, we are not ready for so radical a departure from old established educational policies.

**Effect Upon
the
Public Mind.**

The effect upon the public mind of so radical a change must also be considered. This is especially true in the case of professional schools. In trying to elevate our professional status the public must be taken into account. The facts upon which a school would justify its determination for a dispensation in special cases would of course not be known nor understood by the general public. That it was done might and probably would result in adverse criticism.

It may be urged that the effect on the public mind is merely a psychological proposition, is transitory and of no material importance in this connection. This I am not willing to concede.

We are constantly trying to stimulate mature deliberation, and a desire for ripe judgment in our educational policies. Let us hold fast to that idea in outlining future policies. Academic training is one thing, but technical training is quite another. I question the wisdom of extreme methods in technical training.

Columbia University is adopting an extreme policy. The National Association of Dental Examiners has adopted an extreme policy with respect to dental colleges and dental education. In time I believe we will adopt the middle road, and that the simple rule of justice based upon good sense, resulting from practical experience will apply to all interests. As an instance of extreme measures I cite the Wisconsin case.

**The
Wisconsin Case.** The students in question had completed a full three years' course of study. Had stood every test to the satisfaction of the faculty. Notwithstanding this, the "Rules and Regulations of the State Board"



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forbade the graduation of these men. The college complied with the order of the Board and did not graduate the students. At a subsequent session of the Board the college was declared not reputable for having intended to confer the degree of D.D.S. upon the students in question. Under such conditions one might be pardoned for advocating the change adopted by Columbia University. This would of course only be making use of this theory in its local application.

In the broad sense, however, mindful of the various interests that appeal strongly to me now, I should deprecate the adoption of any radical changes in our system of dental education.

H. L. BANZHAF,
Dean Milwaukee Dental College.

Letter from the Dean of the Dental Department of Washington University, St. Louis, Mo.

Editor ITEMS OF INTEREST:

Dear Dr.:—Replying to your communication in which you request that I consider your editorial in the December number of the ITEMS OF INTEREST, will say that my opinion is very much in line with the thought expressed by the editorial, and that I have, for many years, held this opinion.

I have always thought that the enforcement of the laws, governing the entrance of students to the dental schools of the country, did not do justice to the man, who had previously perfected himself in many of the branches required in the dental curriculum.

A breaking away, at this time, of any one school, in order to take up this work, would create a disturbance in dental teaching, that would demoralize the work to a considerable extent. But, if we succeed in carrying out the suggestions offered by the Committee on Schools of the National Association of Dental Faculties, found on pages 17 to 24 inclusive, especially the last paragraph on page 23, and the remaining paragraphs on page 24 of the proceedings of 1905 of the meeting held at Buffalo, July 27-28, we will, doubtless, be able to make provision for the graduation of such men, as you referred to, in very much less time than would be required at present, by the application of the count system.

If this Board of Regents can be organized by agreement of the three bodies mentioned in the report (the preliminary steps to its organization, taking place during Christmas week in your city), I believe the matter can be adjusted to the satisfaction of all, without creating further disturbance in dental teaching.



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There have been so many efforts made to increase the curriculum, as well as the time requirement, that the subject has been in a very unsettled condition for a long time. It was hoped, at the close of the meeting in Buffalo, that, at least, for a few years, there would be no further effort to change the standard adopted at that meeting, and, yet, taking into consideration the many changes and vicissitudes through which those interested in dental education have passed through the efforts of the N. A. D. F., as compared to the standard of twenty years ago, we must acknowledge that, while all has not been accomplished that might have been wished for, yet much good has resulted to the profession from the work of the N. A. D. F.

Yours truly,

J. H. KENNERLY,
Dean of the Dental Dept. of Washington University.

Letter from the Dean of the University of Buffalo, Dental Department.

Editor ITEMS OF INTEREST:

Dear Dr.:—I very cheerfully comply with your request for my opinion of the ideas advanced in the December ITEMS OF INTEREST upon the subject of dental education. It seems to me that the present state of affairs has grown with the advance of the profession. When dental colleges were first instituted, when attendance upon two terms of instruction of four months each was thought to be enough to impart a sufficiently thorough knowledge of dental science to the student, there was an allowance made for previous office experience, and those who could make it appear that they had been in the practice of dentistry for five years were allowed to graduate after receiving one term of college instruction. But there were offices and offices; some good, and some very, very poor. There was also a disposition among students to stretch the truth, and many who proved to be wholly incompetent upon trial in the colleges, stoutly averred their possession of five years' office experience. The result was that the concession was abandoned.

At the period mentioned there was a call for teachers in the dental colleges, and there were but few graduates. These were, of course, young and inexperienced. But few of the older practitioners had studied medicine, and many of them, of conceded ability, were self-taught. When one of the latter class was wanted as a professor in a dental school he received an honorary degree, and became a D.D.S. solely on his well earned reputation. But the time passed, long ago, when there was any necessity for such procedures, and today there is a strong sentiment against the conferring of honorary degrees in dentistry. Now each state has its dental law; and this represents the consensus of opinion among

the dental profession of the state. The qualifications to be possessed by those seeking to enter into practice in a certain state are prescribed by the law, and are formulated by the dental profession of the state. And instead of the restrictions being antiquated they have advanced with the times and are still growing.

And in the main these restrictions are wise. They may bear hard upon certain individuals, but where is the law which does not, sometimes, work a hardship? All such rules are made for the many, and cannot be specialized to fit individual cases.

The Medical Graduate.

Taking the State of New York for an example, the law provides that a graduate in medicine shall have an allowance of one year, and as the course is set at three years, he can obtain a dental degree by attendance upon two terms of instruction in a dental college. He is excused from taking up, and reviewing, most of those branches of study which pertain to both medicine and dentistry, and the time is accordingly shortened. But some of these studies are specialized, and must be reviewed if the medical graduate wishes to gain a thorough knowledge of dental science. He may have a good knowledge of pathology, as it is taught in medical and surgical schools, but there are many things in dental pathology which he would still be obliged to learn. The same is true of anatomy or chemistry. When they are taken up as a part of a dental education they are not exactly the same as when medicine is studied. In fact, it would be impossible for a graduate in medicine to devote all his attention to the manipulative side of dentistry, and be thoroughly educated in dental science. And two years is certainly a short enough time for anyone, without previous experience, to attain the degree of manipulative skill imperatively demanded by the exigencies of a dental practice.

The Dental Practitioner.

The old dental practitioner would be very likely to find some things taught in the college infirmary which would be of advantage to him. There are many ways of accomplishing the same result; and one accustomed to the routine of office practice may not always know all that there is to be learned of manipulation.

Allowances are often made to students who show that they have mastered certain subjects, and so they are given more time to devote to other matters in which they are deficient. And when these allowances are all made the three-term course, now extant in New York, is none too long. The cases where the compulsory attendance upon three terms has worked a hardship, are so few that they need not be taken into account. The cases where a compulsory attendance for four terms is



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absolutely necessary for the attainment of the knowledge and skill which a doctor of dental surgery should possess, are many. A course of four terms, without any allowances, would work a hardship in some instances, but less than three terms would be wholly insufficient to cover the present dental curriculum.

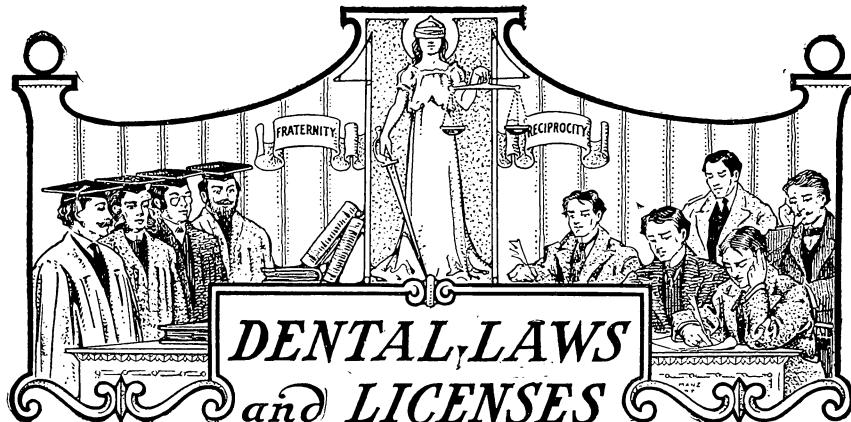
Value of Examinations.

There is a serious objection to be raised to the idea of passing a student on examinations, such as you propose. The examination should be very thorough indeed, much more so than those usually given, to show a full understanding of a certain subject. And the usual method adopted by students of preparing for an examination, that of "cramming," of sitting up nights to read up, only results in getting a temporary grasp of the subject, and loading the mind with a lot of facts which are often forgotten almost as soon as they are acquired. The routine of the class room gives the attentive teacher a good idea of the capabilities of the student, much better than can be gained by an examination of the ordinary kind. And it is questionable whether the examination and count system will be a success. It is better to wait until it has been tried.

A thorough education in dentistry means a great deal. There must be manipulative skill. There must be the memorizing of certain facts, in many subjects. And there must also be experience, to give a clear perception of the correlation and bearing of these facts upon one another; the result being the judgment through which they are applied to the case in hand, and by means of which the correct operative procedures are determined. Manipulative skill is thus made available and invaluable, but without previous training, thought, experience and judgment it may work more harm than good.

The scope of the student's endeavor shall not be limited to a hurried effort to attain barely sufficient knowledge to enable him to pass certain routine examinations. Much more than that is required for a foundation upon which he may afterwards rear the structure of an honorable professional career. The ethical development which he receives by his three years' sojourn within the walls of a well conducted educational institution is a matter only secondary in importance to that of his technical education in his chosen profession. The time so spent is none too long; in many instances, it is not long enough. Yours very truly,

GEO. B. SNOW,
Dean of the University of Buffalo, Dental Dept.



DENTAL, LAWS and LICENSES

The Rule of the Minority.

By Dr. A. W. SWEENEY, Baltimore, Md.

Few will deny that the dental laws have always been unsatisfactory to the vast majority of the profession. It is equally to be conceded that only a very small minority of its members have ever taken active part in procuring the passage of those enactments. Indeed, only a few individuals, here and there, have been solely responsible for every dental law in this country.

Despite that fact, and in the face of widely expressed disapproval, laws to regulate dental practice have steadily multiplied until they have found their way throughout the length and breadth of the land and into its newly acquired territories. Furthermore, as the years have passed, the narrow and restrictive features of the laws, ever the cause of the most widespread adverse criticism, have become well nigh universal.

Such a state of affairs is certainly of great importance to the profession, and it is worthy of closer, more general and *different* attention from that which has been accorded it heretofore.

In plain terms, the situation is just this: Scattered handfuls of self-constituted lawmakers have secured the passage of such laws as they have conceived to be desirable, and they and their successors have succeeded in maintaining them, or in substituting others, often more objectionable, without regard to the wishes of nearly all the remainder of the profession.

This condition is contrary to all usage. It would be ridiculous if it were not so serious. Because a few here and there affect to believe that the public welfare demands it, a practitioner is largely tied to the place in which he may have chanced to begin practice, while a recent

graduate cannot attempt to earn his living without securing the consent of a small politically appointed body, largely responsible to no one. Then, having secured that consent, should a more favorable opening present elsewhere, the same ordeal must be faced again. The injustice and utter unreasonableness of such a situation is almost universally conceded, even by many members of the various examining boards; but as those who have so far devoted their attention to fashioning the dental laws have afforded no relief, it is high time for the matter to be taken in hand by the profession at large.

Some years ago hard things were said of the dentists because they would not stand together and resist the exactions of the old vulcanite company: but there is far less reason for tamely submitting to distasteful legal restrictions imposed by a very small minority of their own number. Yet they have done exactly that for a number of years.

Although the subject of reciprocal exchange of licenses will be considered further on, it may be stated here that a decided majority of the National Board of Examiners are reported to be in favor of that measure. But it is also said that a very active minority has succeeded in defeating their wishes. If that be true, the dental profession surely occupies a most peculiar and unenviable position. First it submits to unpopular laws at the dictation of a mere handful of its members; then the representative body of the officials created under those laws is, in turn, dominated by a minority of its own membership. Truly there would appear to be warrant for the caption of this paper.

**Dental Laws
Illiberal.**

Much argument has been expended in the effort to defend the dental laws on the ground of the right of the state to pass laws for the protection of its citizens. All such argument is purely specious and devoid of value. Can any right of the state be successfully urged in defense of measures confessedly unjust? In another place that line of argument is very weak, as any real benefit which the public have ever derived from the dental laws is problematical. It is some years now since the *Dental Cosmos* pointed out in its editorial pages that the laws to regulate the practice of dentistry had largely proven failures because they had not been so framed as to benefit the public as a class, but the dentists, who constitute only a very small portion of that class. It has a catchy sound for some when men declaim about the pressing need for the maintenance of a high standard, for "levelling upward," for the need of a higher degree of attainment in one locality than in another and (always, of course) about the obligation to safeguard the interests of the public; but those who through practical experience have tested the true spirit of the dental laws, know that all those high sounding sentiments are the



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veriest "glittering generalities." They know that the visible effect of those laws is to render it difficult to engage in practice, and thus to measurably protect against competition those already established.

Narrow, exclusive laws are repugnant to the ethics of a liberal profession. No body of men claiming to recognize a code of ethics as the guide in their professional conduct can ignore the official announcements of similarly constituted bodies of their colleagues without doing violence to its teachings. To attempt to dodge the issue behind the provisions of an ill-framed law is futile. There is no special code of ethics for each separate state. All who respect their calling look upon dentistry as one of the liberal professions; but those who have constituted themselves its lawmakers have supplied it with laws so illiberal that they would not be tolerated among mechanics or trade unions. Medical legislation alone furnishes something of a parallel; but dentistry is under no obligation to follow medicine in any dubious legal jugglery; nor is there the same color of excuse, as dental practice rarely involves questions of life and death.

The Laws Latitude.

Members of examining boards frequently try to excuse themselves for the narrowness of the position which they maintain by pointing out that the laws are mandatory and allow them no discretion. Some, no doubt, actually believe what they state; but, as a matter of fact, such is very rarely the case. Almost invariably they are allowed the widest latitude by the civil authorities. They can do literally just as they please. Many illustrations of that fact have been observed; one recently brought to light was that of a party twice rejected by a state board and then practicing two years in the same state unmolested. Is it to be supposed that the board remained in ignorance of that fact all that time? Still graver charges are frequently hinted at in connection with the administration of the dental laws, sufficient, indeed, to justify the recollection of the old saying, "where there is smoke there must be fire."

Scheming Members of Dental Boards.

Thoroughly honorable men have been active in procuring the passage of dental laws and have filled positions on boards of examiners; but evidence is not lacking to show that they have sometimes had as co-workers some of the veriest schemers. Again, very estimable men have sometimes exhibited rather peculiar attitudes while acting as board officers. To illustrate: The writer recalls an incident where a slight technical error was made by a city official in entering a registration. There was no thought, nor intention of evading the law. When the board took the matter up, however, instead of correcting the mistake in a quiet, genteel way, the secretary wrote the official thus:



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"Dear Sir:—We would like to know by what authority you presume to have a man registered on your books without due compliance with the law."

Considerable needless friction and unpleasantness developed before the matter was adjusted.

The Porto Rico Case.

But though honorable men have labored to accomplish worthy ends through the medium of laws regulating dental practice, those above designated as schemers have not been idle. Within the writer's knowledge, no more striking evidence of the pernicious activity of that class has been given than was furnished in the Island of Porto Rico after the close of the war with Spain. For a time the island was in charge of a military governor. Very promptly, about April 1, 1899, some of the above indicated philanthropists (?) induced the governor to issue an order that only the holders of the American D. D. S. and a certain Spanish registration should be allowed to practice. Julio Lamoutee was then practicing in Ponce, and had been established there some ten years. He was not a graduate, but he had been registered by the insular authorities and recognized by them, and he was highly esteemed by the leading physicians of the place. Nevertheless, he was summarily ordered to cease practicing. Through an elder brother in this country he appealed to the Secretary of War. The War Department did not cover itself with glory in the war with Spain, and it seems to have been consistent in this instance also, as it replied that nothing could be done. The following July the writer learned of the case and called at the War Department. There he was advised by a gallant officer whom he had the good fortune to meet, to bring the matter to the attention of the incoming Secretary, Hon. Elihu Root, now Secretary of State, who became Secretary of War August 1, 1899. An account of the case was prepared, in which, besides other things, it was pointed out that the governor of the island had, doubtless, been influenced in a matter about which he knew nothing by parties far more concerned in promoting their own interests than in furthering the welfare of the public.

Mr. Root is an eminent lawyer. What he thought of the case may be inferred from the fact that on the day after he assumed his portfolio, August 2, he directed that the governor be asked to make a report on the case. The report was expected in about two weeks. When it had not arrived in some six weeks, the request for it was repeated. Continued delay resulted in a third request being forwarded about November 1. Late in the month the Department received—not the thrice requested report, but a copy of an order issued by the governor a couple of weeks previous to the effect that all who were in practice at the time



the island was surrendered to the United States could continue by paying \$25.00 and having their names entered on a registry list.

Data bearing on the case can be found among the archives of the War Department in Washington. Who may have instigated that villainy, under the guise, no doubt, of something to promote the public welfare, and what influences may have been brought to bear on the governor to cause him to so long overlook the request of the Secretary of War, and to finally concede only such an equivocal reply, the writer has never learned. He likewise does not know whether the governor ever had to account for his very apparent lack of courtesy to his chief.

Comment on such a case is unnecessary, save in so far as it may be taken as an indication of the attitude of not a few who have been active in promoting the passage of dental laws. Personal gain, either through restriction of competition or the holding of office is the potent factor in inciting the activity of an appreciable number.

**Interchange
of Dental Licenses.** A realization of the injustice of the narrow, sectional features of nearly all of our dental laws, and a desire to respond to the well known and almost universal sentiment of the profession evidently furnished the motives, which found expression in the much discussed Asheville Resolution. Though there may have been some objection to the wording of that resolution, it showed no defect which could not readily have been corrected by a slight change in the phraseology. Sound, logical argument against the object which it aimed to attain, namely the establishment of full and general reciprocal exchange of licenses among the various state boards, would be hard to adduce. The adoption of a well considered, carefully worded resolution by the National Examiners, binding the various state boards to recognize each other's certificates, would, at once, remove the worst and most objectionable feature in American dental legislation. It would obviate the necessity for much entirely new law making, and it would furnish a splendid vindication of the profession's claim to that liberality which has ever been supposed to distinguish the followers of the learned avocations from other business men.

**The Amendment
to the
Asheville Resolution.**

That a measure designed to accomplish that end should have met with favorable consideration from a majority of the National Examiners is something greatly to the credit of that majority. It is most regrettable that the resolution with only very slight change of wording, did not finally prevail. Most unfortunately it was held up, "emasculated" as one member is reported to have said, by means of an ill-advised amendment. Whatever the true motive of said amend-

ment may have been, is less a matter of moment for present consideration than is its lack of wisdom and its unfortunate effect. The effect has been to check the most liberal and promising movement witnessed in connection with dental legislation, almost from its inception. The check, however, will not be permanent. As to its wisdom, it will suffice to say that, for one reason or another, the dental associations have never yet succeeded in attracting a very heavy proportion of the members of the profession within their folds. With that fact in plain view, the rank folly of attempting to force an increased society membership by offering the chance of interstate license exchange, in the form of a bonus, as it were, becomes obvious. Society membership is worthy of all respect, in its proper place, but it has no proper logical connection with a movement having for its object the elimination from dental legislation of its most troublesome and pernicious feature.

If designed actually to cause an increase in the membership of the societies, the amendment was a blunder. If, while purporting to aim at helping the societies, its true object was the defeat of the original resolution, then it may be credited with being a shrewd political move; but not a measure calculated to inspire a high degree of admiration.

In one of two ways, the solution of the vexed problem in dental legislation will be reached, for it is not conceivable that, with its record of obstacles overcome, and its brilliant and rapid progress in all that has made for its advancement in the direction of increased scientific attainment and technical development, the profession will forever tolerate laws almost universally distasteful.

If it be true, as reported, that the majority of the National Examiners favor the policy of general interstate exchange of licenses, then the inherent privilege of the majority is theirs. They have simply to stand on their rights, and the minority, who, in the familiar term of the day, may be designated as the "reactionaries" will be forced to submit. Theirs is a brilliant opportunity. They can put an end to an almost endless discussion and a very widespread discontent, and can attract most favorable attention to a body, hitherto none too popular with the masses of the profession. By so doing they will confer a great and far-reaching benefit and win for themselves glory and sincere esteem.

**Possible Action
by the
Profession.** The other alternative lies in the hands of the profession at large. Possibly it may involve something akin to a revolution. Certainly it will involve a very thorough overhauling of all the legal properties of the profession. Many who may have imagined themselves highly gifted as lawmakers will be sadly discredited,



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and some who delight in holding office will find no office to hold; for it is beyond belief that a large and constantly growing body of men, including so many bright, progressive spirits, will, for much longer, permit the exercise of one of their most vitally important rights to pass from them by default, to be exercised by a few, who have hitherto given them nothing save a heritage of continual bickering and assigned to them a position which finds its closest analogue only in the most thoroughly boss-ridden communities.

Between the two alternatives cited, clearly the safer and preferable one would be for the majority of the National Board of Examiners to exercise their inherent right and make interstate license exchange an accomplished fact. Drastic and radical changes in the laws would thereby be avoided, as any change rendered necessary in a particular state could easily be secured through the passage by its legislature of a suitable amendment. It must be borne in mind always that a liberal construction of a dental law by a state board is not a matter considered of vital importance by the citizens of the commonwealth at large, even though that construction might for a time exceed the actual limits prescribed by the legislature. As remarked above, the boards are commonly left to act as they see fit. Having quite generally earned the reputation of being decidedly illiberal, they could, with both safety and propriety lean a little the other way, until such time as full statutory authority for so doing might be supplied, after the incentive had been furnished by their own national organization.

To permit an obstinate minority within the national organization, evidently made up of men opposed to popular measures of reform and determined to maintain their own positions, regardless of consequences, would be not only a feeble showing, but most unwise. The masses, when fairly aroused, are prone to excesses. It is by no means to be desired that all dental laws should be swept away. All that is needed is that they should be made more in keeping with the spirit and ethics of a liberal profession. It would not be well to expose them to the risks of a popular storm through an undue yielding to the demands of a reactionary minority opposed to the sentiments of almost the entire profession.

Though the laws hitherto furnished may have largely failed to accomplish the most desired results, it by no means follows that effective and acceptable laws cannot be enacted. Hitherto the laws have quite uniformly adhered to certain grooves, and the administration of them has been largely committed to those whose views do not accord with the opinions of the mass of the profession.

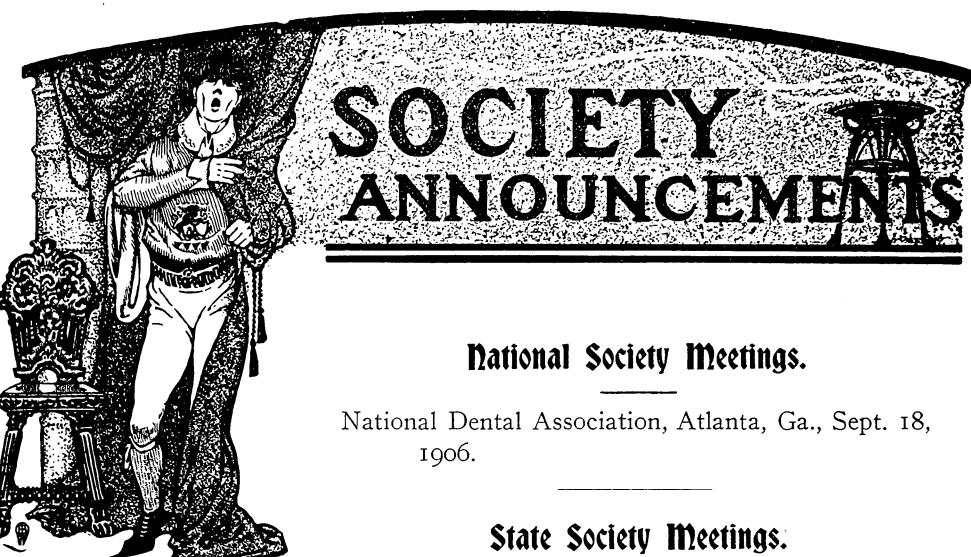


**New Laws
Suggested.**

The result has been continual dissatisfaction. A sufficiently long trial has been given, and the dissatisfaction continues. Clearly it is time for a change. By all means let the change be accomplished with the minimum of risk and friction. Properly framed dental laws would prove a decided benefit, and would command the support and confidence of all the creditable part of the profession. To accomplish that, though, they must be broader and more truly liberal than any in force at present. In framing them the doctrine of state's rights must not be so strained as to effect a professional wrong, and those of the profession residing in a given state must not be encouraged by the law to regard their colleagues in another commonwealth as possible competitors and enemies.

While it has been claimed, and practically conceded, that men cannot be made moral nor ethical by law, the law should never act as a factor tending to render them immoral or unethical, hence as evidence is not lacking that those who have sought selfish and improper ends have left their impress on the dental laws, that unsightly blur should be completely wiped away, and the profession should have a legal code to which all worthy members could point with pride, and to which all could give a hearty and united support.

To have such a code is easily within the bounds of possibility. Dentistry long since demonstrated that it could overcome obstacles. It made a wonderfully rapid growth from well nigh nothing to a very creditable position among the acknowledged liberal professions. Quite an appreciable part of that growth was made without any legal assistance whatever. Surely the profession is now strong enough to manage its own law making without the assistance of the small, self-taught class of dento-legal specialists who have developed so much activity in recent years. But if their help will be deemed valuable, let it be availed of as help, not as entire direction. Let suggestion be accorded due consideration; but by no means let it grow to the proportions of dictation. Thus will dentistry score yet another triumph and demonstrate its right, in full, to be classed among the liberal, the progressive, the truly honorable, among the learned callings.



National Society Meetings.

National Dental Association, Atlanta, Ga., Sept. 18, 1906.

State Society Meetings.

Connecticut State Dental Association, Bridgeport, April 17-18, 1906.

Illinois State Dental Society, Springfield, May 8-11, 1906.

Montana State Dental Society, February 23, 24, 1906.

New Hampshire Dental Society, Plymouth, May 8-9.

Vermont State Dental Society, Brattleboro, May 15, 1906.

The Second District Dental Society, State of New York.

The special annual meeting of the Second District Dental Society, State of New York, will be held Monday evening, January 8, 1906, at the Kings County Medical Library Building, 1313 Bedford avenue, Brooklyn, New York.

An exhaustive paper will be presented by Joseph William Wassall, M.D., D.D.S., of Chicago, Ill., on "Gold Inlay Restoration of Bicuspid and Molars."

This will be a most valuable meeting as the paper to be read is one of great interest at the present time and will be discussed by prominent men of the profession.

The following dental societies have been officially invited:

The First District Dental Society of New York State.



The New York Odontological Society.

The Central Dental Association of New Jersey.

The New York Institute of Stomatology and the New York Institute of Dental Technique.

A most cordial invitation is extended to all ethical members of the dental profession.

A collation will be served at the close of the discussion.

LEROY S. EDWARDS,
Corresponding Secretary,
140 Remsen street.

Ohio State Dental Society.

At the fortieth annual convention the following officers were elected: President, Dr. H. L. Ambler, Cleveland, Ohio.

First Vice-President, Dr. H. C. Brown, Columbus, Ohio.

Second Vice-President, Dr. C. I. Keely, Hamilton, Ohio.

Secretary, Dr. F. R. Chapman, Columbus, Ohio.

Treasurer, Dr. Weston A. Price, Cleveland, Ohio.

Directors for three years, Dr. L. P. Bethel, Columbus, Ohio; Dr. J. R. Callahan, Cincinnati, Ohio; Dr. Henry Barnes, Cleveland, Ohio; Dr. W. T. McLean, Cincinnati, Ohio.

Very truly,

F. R. CHAPMAN, Secretary,
305 Schultz Building, Columbus, Ohio.

Wisconsin State Board of Dental Examiners.

The next meeting of the Wisconsin State Board of Dental Examiners for examination of candidates for license to practice dentistry in Wisconsin will be held in Milwaukee, January 29, 1906, at the Hotel Pfister.

Application must be made to the Secretary fifteen days before examination. The candidate must be a graduate of a reputable dental college, or have been engaged in the reputable practice of dentistry consecutively for four years, or an apprentice to a dentist engaged in the reputable practice of dentistry for five years. For further particulars apply to

J. J. WRIGHT, Secretary,
1218 Wells Bldg., Milwaukee, Wis.



Northwestern University Dental School, Alumni Association.

Alumni Association of Northwestern University Dental School will hold its annual clinic, Tuesday, January 16, 1906, at University Building, corner Lake and Dearborn streets, Chicago. All practitioners are invited to attend.

G. B. MACFARLANE, D.D.S., Secretary,
70 State street, Chicago.

FRED W. PARKER, D.D.S., President.

South Dakota State Board of Dental Examiners.

The next meeting of the South Dakota State Board of Dental Examiners will be held at Sioux Falls, S. D., January 16, 1906, beginning at 1.30 p. m. sharp. All applicants for examination must bring diplomas from reputable dental colleges or affidavit of having been engaged in the practice of dentistry for at least three years immediately preceding said examination. Instruments and materials necessary to do all kinds of operative and prosthetic work will be needed at this examination. Vulcanizer and lathe will be furnished by the Board. All applications must positively be in the hands of the Secretary by January 9.

G. W. COLLINS, Secretary,
Vermillion, S. D.

Eleventh Annual Clinic of the Chicago College of Dental Surgery.

The eleventh annual clinic of the Chicago College of Dental Surgery will be held at the College Building, Chicago, Jan. 17 and 18, 1906. This meeting will be a reunion of all graduates regardless of the fact that they are members of the Alumni. A very excellent programme is being arranged consisting of papers with discussions, clinic and banquet. Rates on all railroads one-third fare have been arranged for on the certificate plan.

Yours very truly,

RUDOLPH BECK,
President.

G. V. Black Dental Club.

The G. V. Black Dental Club (Inc.), of St. Paul, Minnesota, will hold a midwinter clinic in St. Paul, Minn., on February 22-23, 1906.



All practitioners are most cordially invited to be present. An interesting programme is being arranged.

For further information address

R. B. WILSON, Secretary,
107 E. Sixth Street, St. Paul, Minn.

Michigan State Board of Dental Examiners.

At the last regular meeting of the Michigan State Board of Examiners in Dentistry, the following officers were elected to serve for the ensuing year: President, Walter C. McKinney, Saginaw; Treasurer, Chas. H. Oakman, Detroit; Secretary, Albert L. LeGro, Three Rivers. Reciprocity with Oklahoma was ratified. Michigan now interchanges licenses with Canadian Northwest Territories, New Jersey and Oklahoma.

ALBERT LEGRO, Secretary,
Three Rivers, Mich.

